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## MISSOURI STATE MEDICAID HEALTH INFORMATION TECHNOLOGY PLAN

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November 30, 2010

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## Introduction

The American Recovery and Reinvestment Act's (ARRA's) Health Information Technology for Economic and Clinical Health (HITECH) Act created an unprecedented opportunity for states to assist providers with efforts to implement electronic health records (EHRs). Medicaid and Medicare financial incentives, combined with health information exchange (HIE), have resulted in a unique environment around which Missouri stakeholders have coalesced to support providers' achievement of meaningful use. In concert with statewide HIE planning activities under the auspices of the Missouri Health Information Organization (Missouri HIO), the State believes it is well-positioned to ensure a coordinated and coherent approach to improving care for all Missourians by advancing the state's health information technology (health IT) infrastructure.

MO HealthNet appreciates the federal government's support of and commitment to facilitate provider adoption of EHRs. Improving providers' electronic access to information and creating a robust infrastructure to exchange information will enhance the Medicaid program and improve outcomes for all beneficiaries. Missouri's State Medicaid Health IT Plan (SMHP) conveys Missouri's vision for administration of the Medicaid EHR Incentive Program and the state's health IT infrastructure across departments, programs and services. Primarily technical in nature, the SMHP is one tool states use to convey policy and infrastructure requirements for effective program administration.

The SMHP focuses on the five areas outlined by the Centers for Medicare and Medicaid Services (CMS):

- Description of Missouri's current health IT landscape;
- Planned health IT infrastructure improvements that, once implemented, would represent the "to be" state;
- Missouri's approach to administering the Medicaid EHR incentive program, including elements to meet federal requirements regarding planning and communications activities, policy development, and technical components;
- Incentive program audit policies and activities; and
- The proposed pathway to transform to the "to be" landscape.

In developing its SMHP, MO HealthNet relied on a thoughtful and inclusive planning process, engaging both internal and external stakeholders to contribute to a shared understanding of the existing landscape and goals for the future environment; transformation is predicated, in part, upon effective administration of the Medicaid EHR Incentive Program. In recognition of the interdependencies between MO HealthNet and statewide HIE planning, these coordinated efforts represent a commitment of the public and private sectors to develop a fully integrated health IT infrastructure to serve Missouri's providers and patients. With this in mind, Medicaid EHR Incentive Program planning has been a collaboration among MO HealthNet and other divisions within the Department of Social Services (DSS) and departments, such as the Department of Health and Senior Services (DHSS) and the Department of Mental Health (DMH). Planning activities have also been coordinated with state partners and stakeholders, such as the Missouri Health IT Assistance Center (the state's Regional Extension Center), the Missouri Primary Care Association, Missouri Hospital Association (MHA), the Missouri HIO and others. This robust foundation has resulted in a unique and valuable approach to developing the SMHP and enabling the ultimate goal of ensuring that all Missourians have access to high-quality, efficient, patient-centered care.

## **1. Section A: Missouri's As-Is HIT Landscape**

### **1.1 Overview**

The Missouri health information technology (IT) and health information exchange (HIE) landscape is characterized by a variety of public and private initiatives that while conceptualized and initiated separately, are increasingly moving toward more integration and collaboration. This section describes the origin of the Missouri State Medicaid Agency (MO HealthNet) and its technical environment within the Department of Social Services (DSS), as well as the environment of its two sister agencies, the Department of Health and Senior Services (DHSS) and the Department of Mental Health (DMH). Together, the three agencies are committed to a collaborative approach to supporting health IT adoption and HIE for the population of Missourians they serve. This section also describes a variety of private and public-private initiatives around the state committed to providing statewide HIE support or HIE services to a targeted region or population. These private and public-private initiatives are in relatively nascent stages of development, and limited information is being exchanged among unaffiliated providers or provider organizations in the current environment.

### **1.2 Missouri Medicaid: MO HealthNet**

The Medicaid program was enacted by the Federal government through Title XIX of the Social Security Act in 1965 as a federal-state partnership to provide public health insurance coverage to low-income people. Approximately 60 million beneficiaries are enrolled in Medicaid nationwide. State participation in Medicaid is voluntary, though all states currently participate. Monitored by the Centers for Medicare and Medicaid Services (CMS), each state administers its respective program while receiving federal matching funds to support the program. Missouri established its Medicaid program, now called MO HealthNet, in 1967.

#### **Administration**

DSS is the single state agency charged with administration of the Missouri Medicaid program. The Governor established the Missouri Division of Medical Services (DMS) within DSS on February 27, 1985. The Missouri Health Improvement Act of 2007, effective September 1, 2007, changed the division's name to the MO HealthNet Division (MHD).

MHD is led by a director who is appointed by the director of the Department of Social Services. The division receives professional and technical consultation from a medical care advisory committee and designated subcommittees representing the major program domains. MHD's primary purpose is to purchase and monitor health care services for low-income and vulnerable Missourians. MHD has leveraged a number of tools and resources, particularly those focused on evidence-based care, to support quality health care through service delivery systems, standards setting and enforcement, and education of providers and participants. MO HealthNet also relies on consumer engagement to help guide its approach to health care delivery.

#### **Eligibility**

MO HealthNet covers Missourians below certain income thresholds. Pregnant women and infants (under age one) with incomes up to 185 percent of the Federal Poverty Level (FPL) are eligible. Children ages one to five are eligible at 133 percent FPL. Children ages 6 - 18 are eligible at 100 percent FPL. Uninsured children with family with incomes above Medicaid standards but below 300

percent FPL are eligible for Missouri's State Children's Health Insurance Program (SCHIP), SCHIP MO HealthNet for Kids.

Elderly, blind and disabled individuals are eligible for MO HealthNet if they meet income requirements (non-spenddown income limit of 85 percent FPL). Persons who exceed this limit must incur medical expenses equal to the amount their income exceeds the limit before their Medicaid benefits would take effect. Those eligible for cash assistance through the Supplemental Security Income (SSI) program automatically qualify for MO HealthNet on the basis of disability.

| MO HealthNet Eligibility Summary |                          |
|----------------------------------|--------------------------|
| <i>Eligibility Category</i>      | <i>Income Guidelines</i> |
| Children (up to age 19)          | <300% FPL                |
| Parents                          | <≈19% FPL                |
| Pregnant Women                   | <185% FPL                |
| Disabled Individuals             | <85% FPL                 |
| Age 65 & over                    | <85% FPL                 |
| Blind Individuals                | <100% FPL                |
| Qualified Medicare Beneficiaries | <100% FPL                |

MO HealthNet also pays for Medicare premiums, deductibles and coinsurance for Medicare Part A enrollees with income up to 100 percent FPL (also known as Qualified Medicare Beneficiaries).

## Enrollment

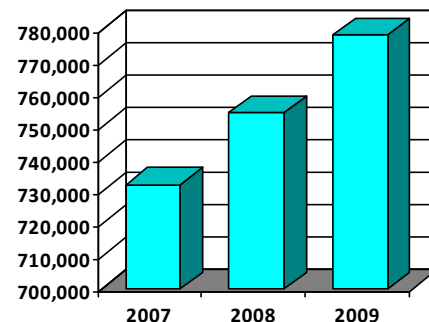
The MO HealthNet monthly enrollment in June 2009 was 778,300, representing a 3.7 percent increase from June 2008, and a 6.1 percent increase from June 2007, as represented by **Figure 1**. The recent economic downturn has contributed to the trend in rising Medicaid enrollment nationwide.

In addition to mandatory services required by the Federal government, MO HealthNet optional benefits include pharmacy services, rehabilitation and specialty services, mental health services (may be federally mandated in some instances), psychiatric care, in-home care, and dental services.

MO HealthNet is comprised of several programs. The following six cover approximately 95 percent of MO HealthNet enrollees:

- MO Health Net for the Aged, Blind or Disabled (MHABD): For eligible seniors, disabled, and/or blind persons.
- Qualified Medicare Beneficiary (QMB): Covers Medicare premiums, deductibles, and coinsurance for eligible persons enrolled in Medicare Part A with incomes up to 100 percent FPL.
- Medicaid MO HealthNet for Kids: For children up to age 19 whose family income meets Medicaid eligibility requirements.

**Figure 1.** MO HealthNet Enrollment (2007 – 2009)





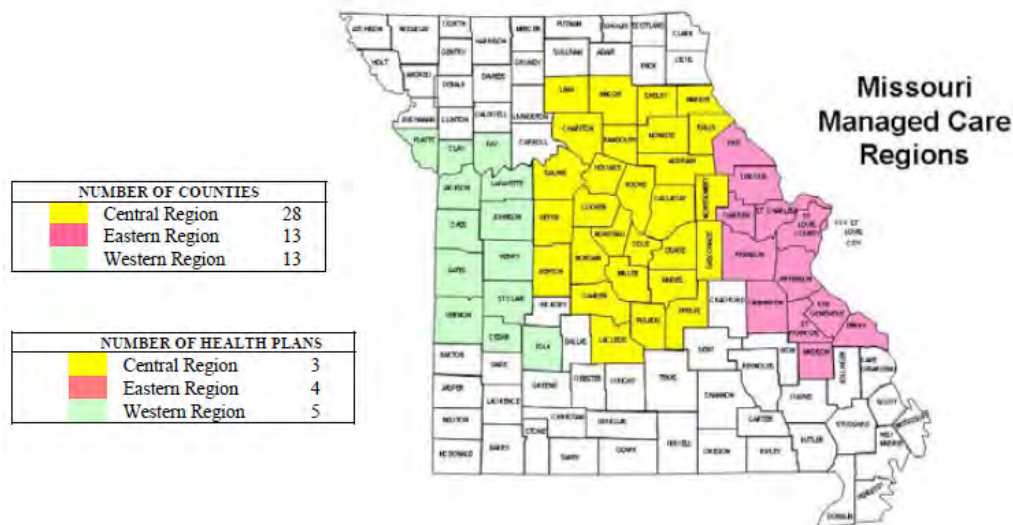
- SCHIP MO HealthNet for Kids: Funded by CHIP, Medicaid MO HealthNet benefits (excluding non-emergency medical transportation) to children whose families' income is too high to qualify for MO HealthNet for Kids but below 300 percent FPL.
- MO HealthNet for Families (MHF): For low-income families with children.
- MO HealthNet for Pregnant Women: Coverage for low-income pregnant women.

## Waivers

Sections 1115 and 1915 of the Social Security Act permit the Federal government to waive certain provisions of Medicaid and CHIP statute in order to foster state innovation in health care delivery and cost containment. Missouri administers several waivers, including:

- Aged and Disabled Waiver: In-home services (homemaker, chore, respite, adult day care, home-delivered meals, etc.) to seniors who would otherwise require nursing home care.
- AIDS Waiver: In-home services to enrollees with HIV/AIDS who would otherwise require nursing home care.
- Independent Living Waiver: An extension of the Consumer-Directed State Plan Personal Care program that provides additional personal care services for participants with more extensive needs above and beyond the average monthly nursing home cost cap.
- Assisted Living Waiver: Bundled assisted living services that prevent the need for more extensive services in a nursing home, however the waiver is not currently funded by Missouri's General Assembly.
- Department of Mental Health (DMH), Division of Developmental Disabilities Waivers: Five related 1915(c) waivers (Comprehensive, Community Support, Missouri Children with Developmental Disabilities, Autism, and Prevention Waivers) that offer services to individuals with mental retardation and/or developmental disabilities who would otherwise require placement in an Intermediate Care Facility.
- MO HealthNet Managed Care (1915(b)) Waiver: Health care services through a managed care delivery system. All beneficiaries residing in a managed care county are required to enroll in managed care, except individuals who receive SSI disability payments, meet the SSI disability definition, or receive adoption subsidy benefits (see **Figure 2** for these counties). Exempt individuals may decide whether to receive services on a fee-for-service basis or through managed care. Enrollees not in a managed care county receive benefits on a fee-for-service basis.

**Figure 2. Counties Served By MO HealthNet Managed Care**



Revised October 15, 2009

### 1.3 **State of Missouri Technical Infrastructure & Environment Overview**

The DSS MO HealthNet Division (Medicaid), DHSS, and the Department of Mental Health (DMH) have a collaborative agreement to develop and implement health IT and HIE for their shared client base. The main feature of Missouri's technical infrastructure is the Medicaid Management Information System (MMIS)—enhanced to offer an integrated electronic health record (EHR) across the Department of Social Services (DSS) and the Department of Health and Senior Services (DHSS)—and provider access to patient data. Below is a brief description of each department's respective technical infrastructure and environment.

#### 1.3.1 **Medicaid Technical Infrastructure & Environment**

##### **Medicaid Management Information System (MMIS)**

The current Medicaid Management Information System (MMIS) is a legacy mainframe system. The system is currently undergoing enhancements and reengineering to improve its flexibility, extensibility, and interoperability, as well as to support the Missouri Clinical Management Services, Pharmacy, and Prior Authorization (CMSP) system.

##### **Clinical Management Services, Pharmacy, and Prior Authorization System (CMSP)**

CMSP is an extension of the MMIS, similar to a data warehouse. It is a web-based, HIPAA-compliant data repository supported by tools and applications that enable health care providers to access patient data from MO HealthNet, DSS, DHSS, and DMH.

CMSP allows providers to view a participant's claim history, prior authorization, some laboratory data, early and periodic screening, diagnosis, and treatment (EPSDT) services, and home and community-based services in order to determine the most appropriate course of treatment.

CMSP capabilities include:

- Electronic prescribing (e-prescribing) for health care providers with prescribing privileges, including prior authorization
- Diagnosis data
- Patient medical history
- Ability to receive alerts
- Means to request precertification of medical procedures

Physicians can electronically submit prescriptions and request pre-certification for imaging procedures and durable medical equipment, as well as develop an electronic plan of care for patients. CMSP enhancements have enabled physicians to enter and process prior authorization for community and home-based services for waiver participants, and have introduced EPSDT forms for collection and storage of preventive health services for children.

Other CMSP tools are interfaced to the Pharmacy Point of Sale (POS) system and are used in monitoring and processing pharmacy, behavioral health, and medical services requests. For example, the Plan of Care tool is used to manage Chronic Care Improvement Program (CCIP) participants; care management functions enable intensive patient tracking among Care Coordinators/Nurse Managers for ongoing support. Providers can also access the Plan of Care through CMSP web-based tools.

CMSP uses a licensed product called CyberAccess<sup>SM</sup>. It is the first step toward a comprehensive EHR for the three state agencies. Over 13,000 providers (representing 82 percent of Medicaid participants) have been trained on the CyberAccess web portal.

### **eMomed Functionality**

The eMomed web portal supports approximately 27,000 users and over 10 million contacts per month. While the portal is on a separate platform than the MMIS, the two are fully integrated. eMomed provides prescribers and other trained users with 24-hour web access to eligibility and claims-related data and functions, including:

- Claims and attachment entry
- Claims/eligibility batch submission
- Insurance exchange for coordination of benefits
- Real-time inquiries to send and receive HIPAA-compliant transactions, including:
  - Member eligibility inquiry
  - Claims payment status inquiry
  - Member enrollment

- Premium payment and remittance
- Pharmacy transactions
- Printable remittance advices (aged and current)
- Claim confirmations
- Eligibility-related provider updates and confirmations

eMomed processes a wide variety of payments, including those for Medicaid managed care capitation and disproportionate share. It is also responsible for processing crossover claims. The system currently processes approximately 8.2 million claims per month. Of those claims, 89 percent are submitted electronically and 10.7 percent on paper. In terms of claims processing time, in 2010 it ranged from low of 0.37 days to a high of 0.79 days.

Publication of static reports via the web portal are also available from eMomed. Available information includes Medicaid manuals, claims processing schedules and instructions, and downloadable forms. Users also have access to provider check amounts and the claims process schedule for the current fiscal year.

### **Point of Sale Pharmacy and Rebate System**

The POS pharmacy and rebate system functionality are fully integrated into the MMIS. Drug claims are received from a pharmacy through a switch vendor to the MMIS; the MMIS subsequently performs participant and provider eligibility verification and forwards the claim to CMSP for clinical and fiscal edits, prospective drug utilization review (proDUR) editing, edit override functions, and prior authorization review. Following completion of any front-end edits and any necessary prior authorization review, a decision to pay or deny the claim is routed back to the MMIS. Drug claims are processed in real-time; pharmacies receive a response within an average of three seconds.

MO HealthNet's current claims processing system allows each claim to be referenced against the participant's drug claims history, medical claims history (including ICD-9-CM) and procedural data (CPT codes). In addition to claims approval/denial and reimbursement information, pharmacy providers receive prospective drug use review alert messages for an individual participant at the time the prescriptions are dispensed.

### **Departmental Client Number (Common Identification Number)**

In the early 1980s, the DSS started assigning a Departmental Client Number (DCN) to individuals served by certain programs. Other DSS programs started using the DCN to identify clients, including Medicaid participants. An electronic common area was established on the mainframe to hold basic client information; the DCN became the unique identifier for these clients. The Women, Infants and Children (WIC) program (administered by DHSS) started using the DCN to identify clients and household members. In the early 1990s, when DHSS began to develop a client-centered integrated data delivery system, the Missouri Health Strategic Architecture and Information Cooperative (MOHSAIC), the decision was made to use the common area to look up clients for MOHSAIC. It was also decided that if a client entered into MOHSAIC did not already have a DCN, then one would immediately be assigned by DHSS and the information would be put in the common area for use by both agencies. In 1994, DHSS began assigning DCNs to every child born in Missouri. The information is stored in the common area with the proper security

measures in place, allowing interoperability between data systems and enabling DSS and DHSS to share information about Missouri clients.

### **1.3.2 *Department of Health and Senior Services Technical Infrastructure & Environment***

The public health system in Missouri is comprised of DHSS, 114 local public health agencies, and multiple partners, such as health care providers, that work together to protect and promote health. The heart of the DHSS technical infrastructure is MOHSAIC, which offers a range of features and functionality to support the work of many of the state's health care providers. MOHSAIC is interoperable with DSS, allowing MOHSAIC to query Medicaid information and to share data on individuals served.

Over time, DHSS has added a range of program components to MOHSAIC, thus realizing the initial concept for an integrated data delivery system. In addition, DHSS maintains separate, stand-alone systems to support required public health and Centers for Disease Control and Prevention (CDC) surveillance and reporting (e.g., sexually transmitted infections, HIV). The following are brief descriptions of systems and statistical reports available to providers and the public through these systems:

#### **Missouri Health Strategic Architecture Information Cooperative (MOHSAIC) system**

In the early 1990s, DHSS developed a strategic plan for information systems that included a client-centered integrated data delivery system. In this system, a client could receive services from more than one public program, but instead of having to give their name and other demographic information with each new service, the integrated data system retained these data after clients registered with DHSS. In 1994, the first phase of MOHSAIC was implemented and contained common demographics, appointment scheduling, inventory and immunization/TB components. In order for local public health agencies (LPHAs) to gain access to the system, DHSS created a statewide network that consolidated access to MOHSAIC, Vital Records and WIC applications.

MOHSAIC continues to provide a statewide network, software and integrated database that allows access to client information to sites that provide health services to Missourians (e.g., LPHAs, private providers, hospitals). It collects and stores information on clients, providers and services and creates an electronic public health record for those receiving DHSS health care services in Missouri. The record includes screening results for metabolic, newborn hearing, cancer, and environmental conditions and information from reportable conditions. Data are also included on services provided for head injury, communicable diseases, and service coordination. In addition to other types of data, MOHSAIC currently includes data on approximately 24 million doses of vaccines, 700,000 communicable disease reports, and 1.4 million lead test results.

MOHSAIC implemented electronic data exchanges with the DSS Medicaid billing system in 1994 to retrieve vaccine information included in their claims data. In addition, a near daily exchange was later implemented between Gateway EDI, a medical billing clearinghouse, to provide billing data on immunizations from participating providers. This exchange resulted in vaccine data from commercial health plans and private pay patients being included in MOHSAIC.

#### **MOHSAIC Common Area**

The MOHSAIC database common area is the true "hub" of the system. The common area includes client information (e.g., DCN, demographics, household information, address) as well as provider data. Like it does for clients, this efficiency allows providers to avoid re-entering information for

each MOHSAIC application. The MOHSAIC common area also includes functionality used by multiple applications, including geocoding, security, and claims processing. In addition, DHSS is able to connect to the DSS common area, in order to access DHSS client information through the client's assigned DCN.

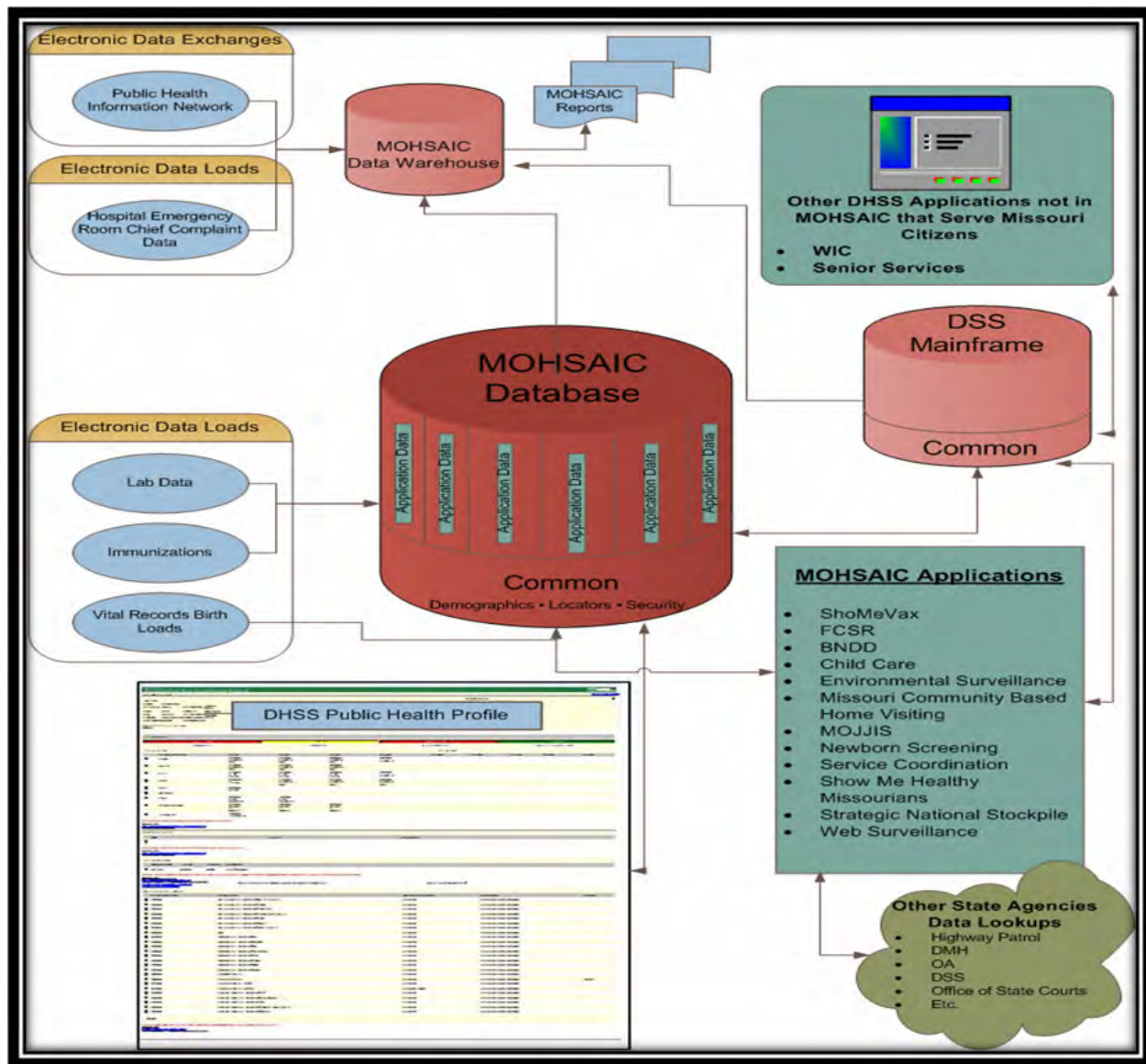
### **Data Exchanges/Loads and Public Health Information Network (PHIN)**

When the MOHSAIC concept was first developed, it was created primarily as a data entry system, with limited focus on data loads or exchanges. This was because most entities did not have robust enough data systems to support such activities. MOHSAIC is no longer primarily a data entry system, but more of a data delivery system. DHSS currently receives data electronically from over 80 hospitals and four laboratories in Missouri. Most of this data exchange is in real-time HL7 reporting. DHSS receives an electronic transmission of immunizations included in billing data processed by Medicaid and Gateway EDI for their participating providers. Data is also exchanged with the CDC on a daily basis. DHSS participates in the CDC Public Health Information Network (PHIN). The PHIN is a national initiative designed to improve the capacity of public health entities to use and exchange information electronically by promoting the use of standards and defining functional and technical requirements. PHIN strives to improve public health by enhancing research and practice through best practices related to efficient, effective, and interoperable public health information systems. All CDC-funded components in MOHSAIC are PHIN-compliant.

### **DHSS Public Health Profile**

In order to provide a more rapid summary of the public health information included in MOHSAIC to relevant health care providers, DHSS developed a web-based summary application, the Public Health Profile. This function allows providers to type the profile URL into a web browser, enter their user ID and password, and look up a client. The profile summarizes information about the client's immunization status, newborn blood spot, newborn metabolic, hearing and lead testing results, as reported to DHSS. While still in its pilot phase, the application also provides an indicator when additional follow-up for these conditions are due, and shows documented allergies. This allows DHSS providers a "one-stop shop" for client information reported to DHSS, instead of having to look-up the information in several different MOHSAIC components with different user IDs and passwords (see **Figure 3**).

**Figure 3. DHSS MOHSAIC, Common Area, Data Exchanges/Loads, Public Health Information Network and DHSS Public Health Profile Graphical Layout**



### 1.3.3 Department of Mental Health Technical Infrastructure & Environment

#### Customer Information Management, Outcomes, and Reporting (CIMOR) system

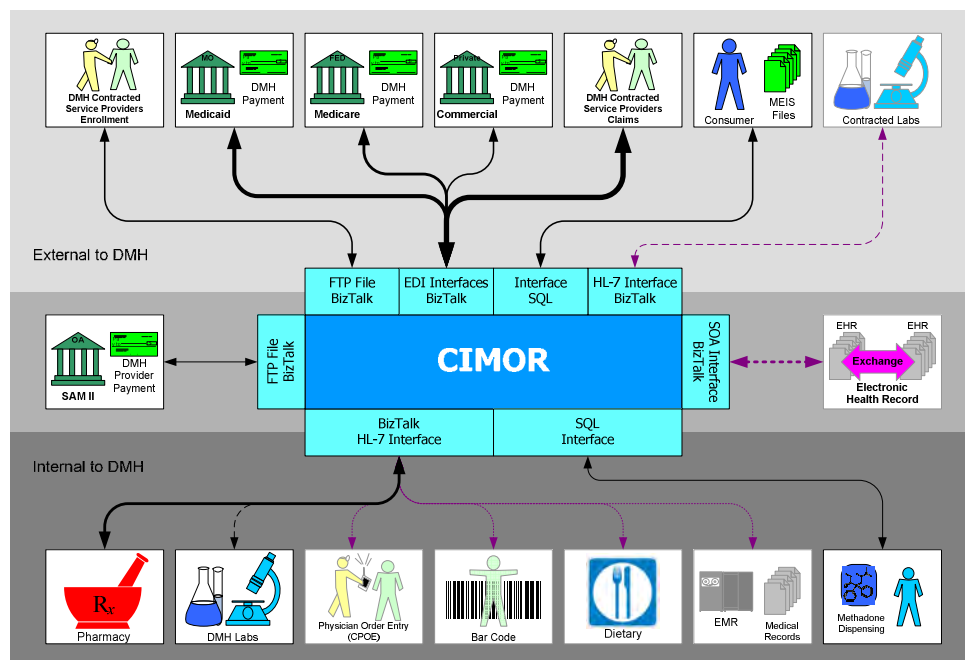
DMH facilities, providers and regional offices are supported by the Customer Information Management, Outcomes, and Reporting (CIMOR) system. As the DMH corollary to MOHSAIC, CIMOR is an enterprise medical information system that collects and stores a wide range of information used in supporting the DMH business areas, including:

- Identifiers: Various identifiers and reporting capabilities to track general information about organizations that are part of, or do business with, DMH.
- Consumer Information: Demographics, Medicaid eligibility, admission and discharge information, as well as services that are collected within a given episode of care.
- Bed Management: Inpatient facility bed availability and billing calculations for consumers based on populating beds.
- Billing: For example—authorizations, encounters, vouchers, waiver—based on delivery of services or encounters for payers (e.g., Medicaid, Medicare, private insurance, etc.).
- Fiscal Management: Handles the distribution of state funding (e.g., appropriations, allotments, allocations).
- Human Resources: General staff information.
- Consumer Banking: Many inpatients require banking functions to pay for services or for personal items.
- Event Management & Tracking: Handles tracking of incidents that may result in the compromise of a consumer's safety. Details of incident investigation, individuals involved and follow on progress of the incident are logged into this area.
- Assessments/Screenings: Clinical information (e.g., assessments, screenings), results, follow-on diagnoses, and treatment plans.

CIMOR is used extensively for processing DMH provider payments; using a scalable framework, it is the goal of the CIMOR system to integrate the various clinical, financial, and administrative data from all divisions and make it viewable by authorized users throughout the department.

In addition, integration with other Missouri departments and divisions is being addressed. For example, approximately 50 percent of DMH patients are Medicaid-eligible; data for this patient population is being integrated into CMSP, making it possible for mental health clinicians to view Medicaid and mental health services and drugs provided to patients for better care coordination. **Figure 4** represents CIMOR's interactivity with other entities.

**Figure 4. CIMOR Interfaces**





## 1.4 EHR Adoption

EHR adoption by MO HealthNet providers is crucial to achieving Missouri's goals for high-quality, cost-efficient care. Currently there is no comprehensive resource that tracks or measures EHR adoption among the state's health care providers. There have been several surveys conducted by industry and trade associations providing a subset of adoption information for either providers or hospitals. These data indicate that although health IT has been incorporated into many practice settings, progress toward fully implemented systems must still be made.

In an effort to develop a comprehensive understanding of EHR adoption among all Missouri providers, MO HealthNet recently launched a statewide health IT survey. A joint effort of MO HealthNet and MO-HITECH (Missouri Office of Health Information Technology), the survey was disseminated to all Missouri licensed hospitals, physicians, nurse practitioners, physician assistants, certified nurse midwives, and dentists. The web-based instrument was fielded in September and October 2010 to gather information about the current use of health IT systems, plans for EHR adoption, and likelihood of participation in the EHR Incentive Program. While a preliminary analysis has been conducted, more in-depth studies will include examination by geo-code and provider type to enhance MO HealthNet's understanding of the state's providers. Preliminary findings are currently being shared with stakeholders to inform planning and implementation efforts. For example, MO HealthNet provided the MO HIT Assistance Center with a subset of the data for practices with under 10 physicians, rural health centers, and Federally Qualified Health Centers (FQHCs) for use in planning and outreach efforts.

Missouri contracted with the survey firm Adams-Gabbert, the same firm used by the State of Kansas, to conduct its provider survey. Kansas and Missouri collaborated on the procurement process, using similar survey instruments and processes for data collection. MO HealthNet will leverage the provider survey to facilitate communication to providers and encourage enrollment in the Medicaid EHR Incentive Program. The survey instrument is included in Appendix 6.2.

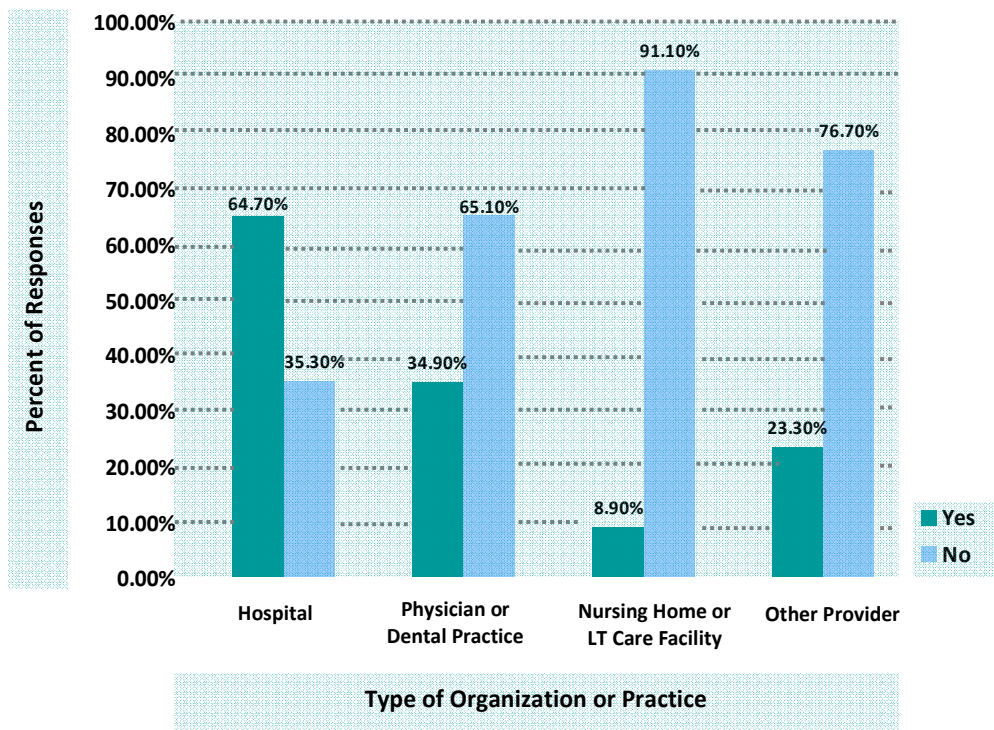
Approximately 2,122 surveys were completed, representing 9,320 physicians (33 percent of the state's total physicians). Respondents could complete the survey for multiple health care professionals. Therefore, "total responses" represents the number of surveys completed while "total clinicians" represents the number of clinicians that were represented by the survey. (The survey methodology required respondents to provide National Provider Identifiers for every provider represented by a single submission.)

A central goal of the survey was to assess the level of EHR adoption among Missouri providers. In this regard, **Figure 5** reflects that 32 percent of respondents (representing 5,197 physicians) reported that their organization used an EHR,. As **Figure 6** indicates, hospital respondents reported the highest use (64.7 percent) of EHRs, followed by physician or dental practices (34.9 percent).

**Figure 5. EHR Adoption Among Respondents**

|              | Total Responses | Total Clinicians |
|--------------|-----------------|------------------|
| Yes          | 604 (32%)       | 5197 (64%)       |
| No           | 1285 (68%)      | 2932 (36%)       |
| <b>Total</b> | <b>1889</b>     | <b>8129</b>      |

**Figure 6. EHR Adoption Among Survey Respondents (by provider type)**



Survey respondents who had not adopted EHRs and/or were not planning to adopt an EHR in the future were asked to identify barriers to adoption. Top barriers include the expense associated with EHRs, decreased productivity and confusion over the ideal product. The most common barriers identified by respondents are listed in **Figure 7**. MO HealthNet anticipates the services provided by the Missouri HIT Assistance Center will address several of the most frequently cited barriers for EHR adoption. For example, the Center is working with a Group Purchasing Organization (GPO) to secure lower-cost contracts and pricing arrangements; these agreements will be available to providers who receive services from the Center. Kansas's Regional Extension Center is working with the same Group Purchasing Office.

**Figure 7. MO HealthNet Provider Survey Results: Barriers to EHR Adoption**

|  | Count | Percent of respondents |
|--|-------|------------------------|
| Too expensive  | 311   | 56%                    |
| Decreased Productivity during implementation resulting in decreased revenue        | 228   | 41%                    |
| Confusing number of EHR choices  | 222   | 40%                    |
| Staff does not have the expertise or technical capacity to use an EHR              | 129   | 23%                    |
| Fear of transition   | 102   | 18%                    |
| Other  | 101   | 18%                    |
| Concern that EHR choice will quickly become obsolete                               | 88    | 16%                    |
| EHRs lack of interoperability with other systems resulting in high interface costs | 82    | 15%                    |
| Privacy and security concerns, including HIPAA                                     | 81    | 15%                    |
| Limited resources  | 79    | 14%                    |
| Limited Broadband access   | 71    | 13%                    |
| Staff is satisfied with paper-based records system                                 | 49    | 9%                     |
| No currently available EHR product satisfies our needs                             | 41    | 7%                     |

The survey also sought to measure a number of important elements relative to Medicaid EHR Incentive program planning, including interest in Medicare and Medicaid incentives, levels of health IT adoption, and the utility of and interest in technical assistance services, such as those provided by the Center. As **Figure 8** indicates, 186 survey respondents (of a total 596 who answered this question) indicated their interest in applying for the Medicaid EHR incentives.

Additional analysis of the survey data can be found online at <http://www.dss.mo.gov/mhd/ehr/> (see *MO HIT Survey Results* and *MO HIT Survey Results Abbreviated*).

**Figure 8. Respondents and EHR Incentives**

| Plan to Apply For Incentives   | Survey Respondents |
|--------------------------------|--------------------|
| Medicare incentives            | 277                |
| Medicaid incentives            | 186                |
| Do not plan to seek incentives | 10                 |
| Unsure                         | 123                |
| <b>Total</b>                   | <b>596</b>         |

**Note:** Includes multiple responses for hospitals

### **1.4.1 Physicians**

Prior to the statewide MO HealthNet provider survey, several surveys had been conducted to measure physician adoption of EHRs. MO HealthNet is currently working with stakeholders to understand how earlier survey data may be cross-referenced against the more recent statewide survey and help to better understand the overall provider landscape in Missouri. Physician specific surveys and respective results are described briefly below.

In 2009, the Missouri Academy of Family Physicians (MAFP) conducted a survey of its membership, finding that, of physicians surveyed:

- 54 percent were utilizing an EMR in their office;
- 18 percent planned to use an EMR soon; and
- 85 percent cited continuing medical education sessions addressing EMR issues as somewhat or very important.

The Missouri HIT Assistance Center (the Center), the federally designated Regional Extension Center (REC) for the State of Missouri, conducted an electronic survey in early 2010. As of February 18, 2010, 280 individuals had responded. The majority of those who responded (175) reported that they practiced in settings with 10 or fewer prescribers. Forty percent of respondents indicated their practice was completely electronic, while 32 percent reported their practices used a combination of electronic and paper records. Another 9 percent reported that they were in the process of EHR implementation.

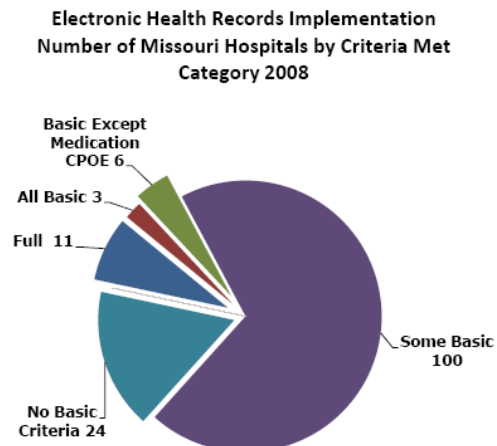
The relatively small survey size and requirement for an electronic response, likely indicates that the Center's survey results are not broadly applicable to the entire Missouri provider landscape, and likely more representative of those providers who are "early adopters" of technology and EHRs.. It is interesting to note that the Assistance Center's survey results are consistent with the CDC's 2009 National Ambulatory Medical Care Survey (NAMCS). Of the physicians surveyed:

- 44 percent were using full or partial EMR/EHR systems;
- 20 percent had systems that meet the criteria of a basic system; and
- 6 percent were using a fully functional system.

### 1.4.2 Hospitals and Hospital Systems

The Missouri Hospital Association (MHA) conducts an annual survey of the state's 155 hospitals, including the state's critical access and rural hospitals, assessing EHR adoption and implementation relative to ONC criteria. As of 2008, the majority (over 100) of those hospitals reported some basic level of EHR implementation; only 24 hospitals reported no implementation efforts; the responses are consistent with the results obtained in the MO HealthNet survey. **Figure 9** depicts the level of adoption among Missouri's hospitals in five ONC categories and the corresponding criteria upon which hospital EHR implementation was assessed:

**Figure 9.**



Source: Annual Licensing Survey IT Section - 144 hospitals responded out of 150. Hospitals reporting full implementation of criteria across all units on for each of 9 "Basic" criteria or all 24 "Full" implementation criteria.

- *No EHR*: Reported implementation for 0 of the 24 identified ONC categories;
- *Partially Implemented*: Identified adoption for 1-23 of the identified categories;
- *Basic Implementation*: Identified implementation of the nine select & specific categories as defined by OHITA (these nine categories are a subset of the 24 identified for full implementation); and
- *Fully Implemented*: Identified implementation of 24 ONC-defined criteria required for full implementation.

### 1.4.3 Rural Health Clinics

There are 340 rural health clinics in Missouri. The majority of rural health clinics are small- and medium-size practices; over 1,500 total mid-level providers currently practice in rural health clinics. According to the Missouri Rural Health Association, fewer than 10 percent of rural health clinics have implemented and/or use EHRs.

### 1.4.4 Federally Qualified Health Centers (FQHCs)

Recent efforts by Missouri's FQHCs and their primary care association have resulted in widespread adoption of EHR technology. There are 23 FQHCs in Missouri with nearly 180 total sites (including two "look-alikes"); these sites represent 300 prescribing professionals. All but one FQHC has adopted an EHR; the one remaining site is anticipated to implement an EHR by the end of 2010. There are approximately eight unique EHR systems among the FQHCs.

In June 2010, two Health Resources Services Administration (HRSA) grants were awarded in Missouri to further support health centers' adoption and implementation of EHRs and health IT. The Missouri Coalition for Primary Health Care (MCPHC), led by the Missouri Primary Care Association (MPCA), was awarded \$1 million to support the expansion of its data warehouse. The

St. Louis Integrated Health Network (IHN), a HRSA-funded Health Center Controlled Network of five St. Louis-based FQHCs, was also awarded \$1 million.

The MPCA, with the support of state funding, has historically supported its members' acquisition of CCHIT-certified EHRs, hence the close to 100 percent EHR adoption among Missouri's FQHCs. Grant funding has also enabled the MPCA to build a data warehouse with interfaces to the individual FQHCs, intended to collect data and facilitate reporting needs (e.g., quality reporting, population health) among its members. The grant will continue to fund the development of MPCA's data warehouse so that the reporting capabilities, and subsequently patient care initiatives, may be realized.

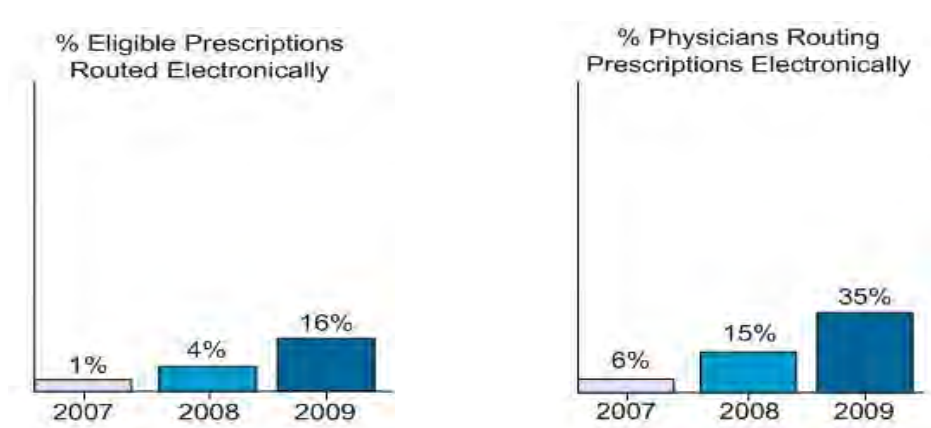
The St. Louis IHN plans to use the funding to support its Network Master Patient Index project. The goal of this initiative is to improve patient care by enabling the secure exchange of electronic patient health information across community health centers and hospital emergency departments in the region.

### 1.5 *Electronic Prescribing*

Medicaid providers have access to e-prescribing and refill request capabilities through a Surescripts-certified feature of CyberAccess. Formulary information and class one alerts are currently available in CyberAccess.

The rate of e-prescribing adoption and utilization among providers and pharmacies in the state has grown steadily in recent years. In 2009, 5.5 million prescriptions were transmitted electronically, compared to 1.4 million in 2008.<sup>1</sup> As **Figure 10** reflects, of eligible prescriptions (excluding controlled substances), 16 percent were routed electronically in 2009, compared to only four percent in 2008. The number of Missouri physicians routing prescriptions electronically also increased significantly, with 3,119 physicians (35 percent) routing e-prescriptions in 2009, representing a near six-fold growth since 2007. Adoption has also grown among community pharmacies: 89 percent of pharmacies were reported to be capable of receiving electronic prescriptions in 2009 (versus 71 percent in 2008).

**Figure 10. Electronic Prescribing in Missouri (2007 – 2009)**



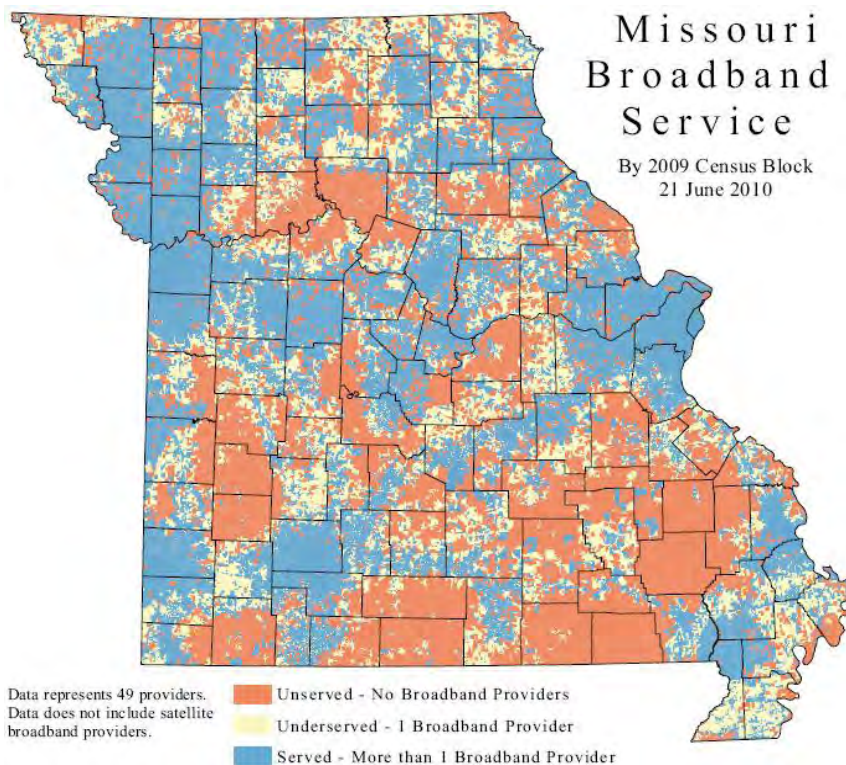
<sup>1</sup> Surescripts. State Progress Report on E-Prescribing: Missouri. Data as of December 31, 2009. Available at <http://www.surescripts.com/about-e-prescribing/progress-reports/state.aspx?state=mo>. Accessed on September 6, 2010.



## 1.6 Broadband Access

Concerted efforts are underway in Missouri to improve access to broadband statewide. MoBroadbandNow, a private-public partnership, was launched in the summer of 2009 to aggressively compete for federal stimulus funds to expand broadband accessibility. When the initiative was launched, it was estimated that 79.7 percent of the population had access to broadband across the state; Governor Nixon's goal is to improve accessibility to 95 percent of the total population by the end of 2014. **Figure 11** illustrates access to broadband across the state as of June 2010.

**Figure 11. Missouri Broadband Coverage**



MoBroadbandNow is operating under a comprehensive vision for broadband and has aggressively pursued funding opportunities under the National Telecommunications and Information Administration (NTIA) and the USDA Rural Utilities Service (RUS). On July 2, 2010, it was announced that a number of Missouri entities had been awarded RUS grants. Funded projects within the state include:

- Grand River Mutual Telephone Corporation (Powersville, Missouri): This \$20.3 million grant/loan project will provide broadband service to the towns of Corydon, Millerton, Allerton, and Lineville, Iowa; and Powersville, Missouri, and their surrounding rural areas. The project will affect approximately 5,200 people.

- Grand River Mutual Telephone Corporation (Lathrop, Missouri): Approximately 3,200 people, 47 businesses and 12 community institutions stand to benefit from the \$11 million Grand River Mutual Fiber-to-the-Home Broadband Deployment Project in Lathrop, Missouri, and its surrounding areas via a fiber-to-the-home network.
- Northeast Missouri Rural Telephone Company (Green City, Missouri): Northeast Missouri Rural Telephone Company will receive \$7.2 million to construct a FTTP network enabling greater than 20 Mbps broadband access. This network stands to benefit over 2,500 people near Green City, Missouri.
- University Corporation for Advanced Internet Development – MOREnet: This \$62.5 million grant (with an additional \$34.3 million applicant-provided match) will interconnect more than 30 existing research and educational networks, creating a nationwide high-capacity network that will enable advanced networking features for more than 100,000 essential community anchor institutions

## **1.7 Veterans Administration & Indian Health**

Within Missouri, the Veterans Administration (VA) has a number of facilities. There are two Medical Centers in St. Louis; other Medical Centers are located in Columbia, Kansas City, and Poplar Bluff. In addition, there is one outpatient clinic in Branson, along with 19 community-based outpatient clinics spread throughout the state. These centers are part of the VA Heartland Network, which is also operational in Kansas and parts of Illinois, Indiana, Kentucky and Arkansas.

Health information across locations is shared via the Veterans Health Information Systems and Technology Architecture, also known as VistA. In addition to connecting sites within Missouri, the enterprise-wide system allows providers to share clinical information across VA facilities worldwide.

There are no Indian Health Service facilities, federally recognized tribes, or tribal (non-IHS) health clinics in Missouri.

## **1.8 Health Information Exchange**

Missouri is currently developing a statewide HIE that will support improved patient outcomes, system efficiency, robust data exchange, and accountability. Integration of MO HealthNet into this statewide infrastructure is essential to the success of future efforts and presents an opportunity to dramatically enhance MO HealthNet's current investments in health IT for improved care and efficiency. It is envisioned that the statewide effort—the Missouri Health Information Organization (Missouri HIO)—will tie together public and private HIE efforts as described below through a “network of networks” technical approach. Representatives from MO HealthNet, the local HIE initiatives (described below), and the Missouri HIT Assistance Center have been active participants in the development of the strategy and governance of statewide HIE efforts.

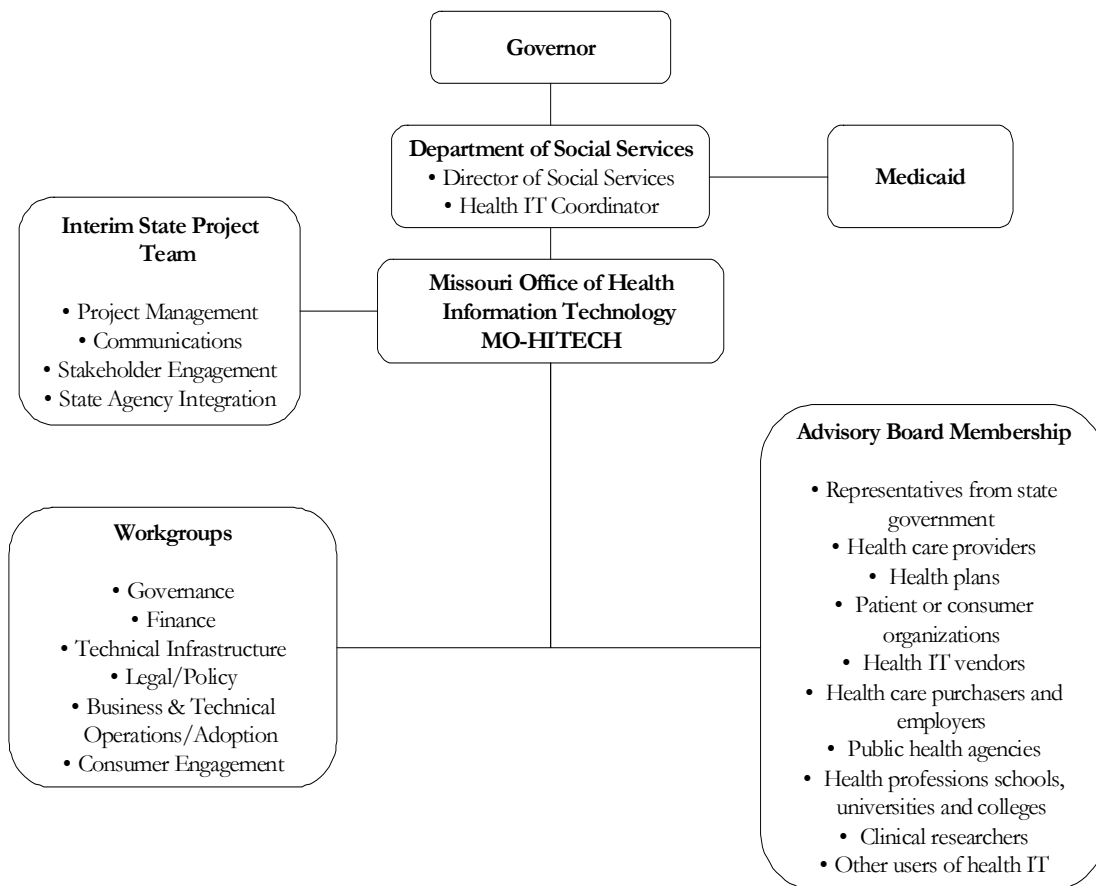
### **1.8.1 Missouri Office of Health Information Technology (MO-HITECH)**

Prior to the establishment of the Missouri Health Information Organization (HIO), Governor Jay Nixon created MO-HITECH in 2009 to oversee a statewide, public-private planning initiative under the State HIE Cooperative Agreement Program. The State's Health IT Coordinator and DSS Director, Ronald J. Levy, championed the effort along with colleagues and staff at DSS. Governor Nixon also appointed an Advisory Board to oversee MO-HITECH's six workgroups and provide recommendations to the Governor's office. **Figure 12** depicts the relationship among the State,



MO-HITECH, the MO-HITECH Advisory Board, workgroups, and state project team during the HIE strategic and operational planning process.

**Figure 12. Relationships Among the State, MO-HITECH, Advisory Board, Workgroups, and State Project Team**

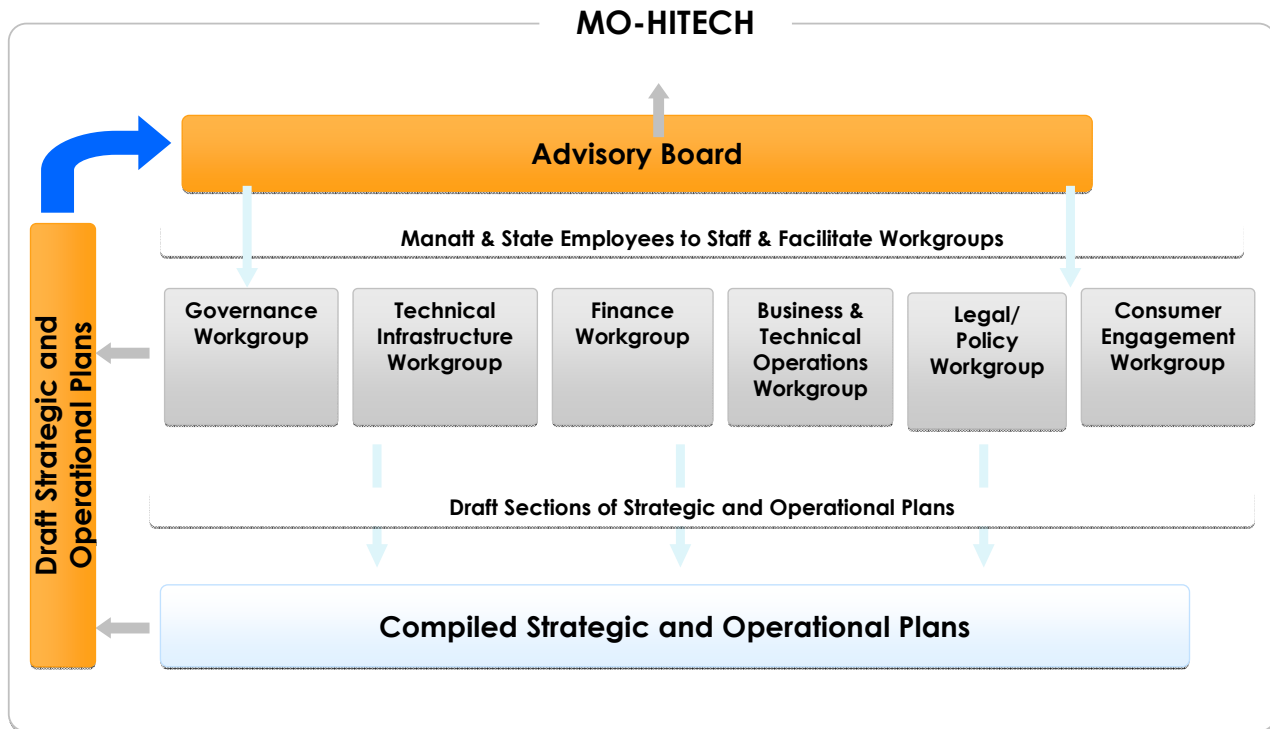


MO-HITECH was created to facilitate input into the development of the state's HIE Strategic and Operational Plans for submission to the Office of the National Coordinator for Health Information Technology (ONC). In an effort to inform these plans, the initiative convened six workgroups (displayed in **Figure 13**) to address the five domains outlined in the Funding Opportunity Announcement and an additional workgroup to address consumer engagement.

The workgroups met twice a month between December 2009 and June 2010 and participated directly in the drafting and revising of the state's HIE Strategic and Operational Plans. The MO-HITECH Advisory Board met monthly to review and discuss the workgroups' recommendations and ultimately to make recommendations to the Governor's Office. Director Levy served as co-chair for the Advisory Board along with Barrett Toan, former CEO of ExpressScripts. Ian McCaslin, MD, director of MO HealthNet, also served on the Board along with Margaret Donnelly, director of DHSS, providing a strong state perspective and representation on the Advisory Board.

In addition to ongoing opportunities for public comment and input via MO-HITECH Workgroup and Advisory Board meetings, the State kept stakeholders abreast of developments in a consistent and transparent manner through a public website and email listserv. Over 200 unique stakeholders participated in-person in the MO-HITECH initiative via these two channels, including representation from health plans, provider organizations, HIEs, universities, foundations, technology vendors, consumers and patient advocates. The feedback loop between stakeholders, Workgroups, the Advisory Board, and MO-HITECH is depicted in **Figure 13**.

**Figure 13. MO-HITECH Workgroups & Advisory Board**



The MO-HITECH HIE Strategic and Operational Plans included the following major recommendations relative to governance and the State's participation:

- Statewide HIE will be governed by a collaborative multi-stakeholder organization; an independent, not-for-profit organization (501c3)—the Missouri HIO—will be created and overseen by a diverse Board of Directors.
- The State will participate in the Missouri HIO as it has a non-delegable role as the steward of State assets and the protector of the public interest.
- The Missouri HIO will define and adopt business, technical, and operational policies that participants will comply with as members of the Missouri HIO.
- The Missouri HIO will coordinate with the Missouri's Regional Extension Center

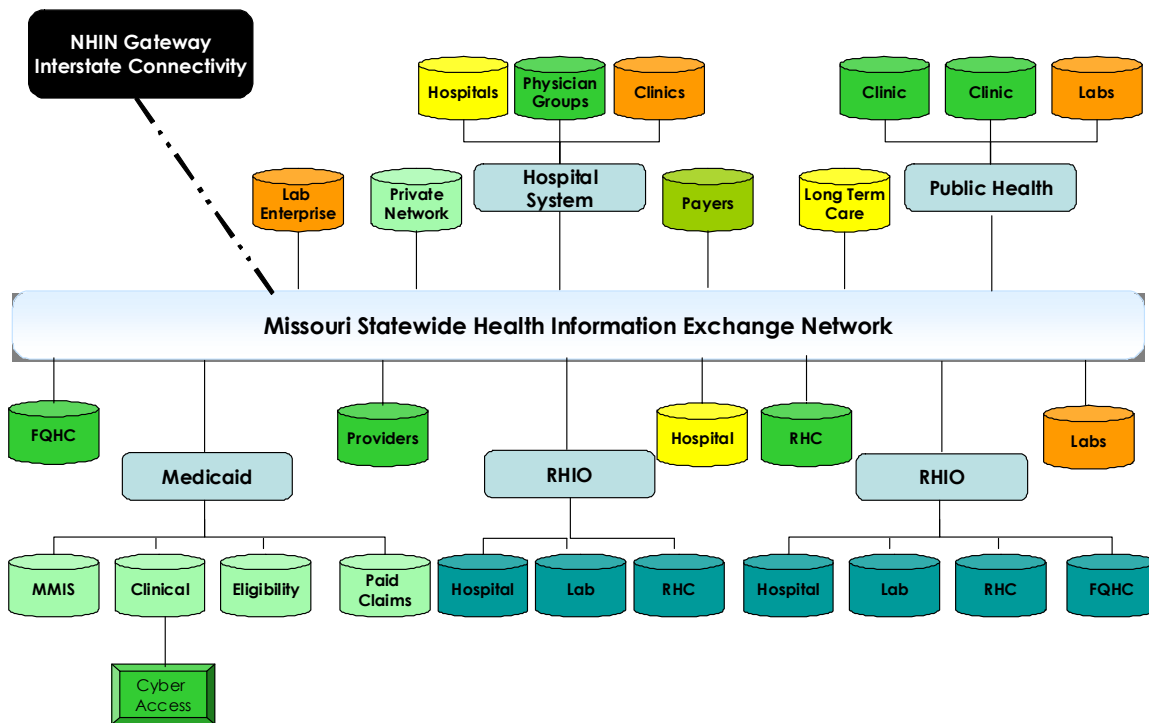
Following the submission of the MO-HITECH HIE Strategic and Operational Plans, the Missouri HIO was incorporated to implement the plans' recommendations and fulfill requirements under the federal Statewide HIE Cooperative Agreement Program. The Missouri HIO has a public-private board of 17 directors (see Board of Directors list in Appendix 6.1) and is currently supported by staff from the Department of Social Services (DSS), Manatt Health Solutions, and Polsinelli Shugart, LLC. DSS is represented on the Board of Directors by Director Ronald J. Levy, the State's Health IT Coordinator, and Dr. Ian McCaslin, the Director of MO HealthNet; the two Board seats are ex-officio in nature and are secured in the Missouri HIO's bylaws. The State's Health IT Coordinator holds an ex-officio, voting seat; the MO HealthNet Director holds an ex-officio, non-voting seat (bylaws may be accessed online at <http://dss.mo.gov/hie/action/index.shtml>). The Board of Directors meets monthly to oversee statewide HIE planning activities.

The Missouri HIO is currently facilitating two multi-stakeholder workgroups focused on planning relative to statewide HIE: the Technology and Operations Workgroup and the Legal and Policy Workgroup.

The Technology and Operations Workgroup is charged with the development of an approach to statewide HIE infrastructure that satisfies federal requirements and supports providers' pursuit of meaningful use. The workgroup has designed a phased implementation approach and rollout; in the initial phase (by June 2011) core system components will be implemented to facilitate lab results routing and patient care summaries among providers utilizing a provider registry/directory and secure messaging; MO HealthNet is closely involved in planning with respect to the provider registry as MO HealthNet must develop a provider registry to effectively administer the EHR Incentive Program. The second phase (by October 2012) will leverage existing core system components to implement robust HIE services, including patient lookup and retrieval of patient health information from disparate sources (e.g., labs, hospitals, pharmacies). The Missouri HIO issued an RFP for a technical services partner on November 12, 2010 and anticipates contracting with a vendor in the first quarter of 2011. To access the RFP please visit <http://dss.mo.gov/hie/action/index.shtml>.

The envisioned statewide HIE network will connect and enable communication among unaffiliated providers and provider networks. **Figure 14** depicts the statewide HIE network and potential organizations that may connect to the Missouri HIO. MO HealthNet (Medicaid) is considered a vital partner in the statewide HIE planning efforts and has been closely involved in the design of the statewide HIE network.

**Figure 14. Missouri Statewide HIE Network**



The Legal and Policy Workgroup is charged with the development of statewide privacy and security policies; the workgroup is currently drafting an interim set of privacy and security policies that will apply to the first phase of the Missouri HIO's technology implementation. The workgroup will subsequently develop comprehensive policies in anticipation of the second phase of implementation and the availability of robust HIE services. It is anticipated that the Missouri HIO will require affirmative patient consent in the second phase of implementation and that the Missouri HIO will offer consent management services.

In addition, the Missouri HIO is in the process of constituting a Consumer Advisory Council, with participation to include consumer advocacy organizations and individual consumers. The council is anticipated to begin meeting in December 2010 to provide input into the development of statewide privacy and security guidance and technical approach. The Board of Directors will appoint council membership to ensure it represents the diversity of Missourians.

### **1.8.2 Private HIE Initiatives**

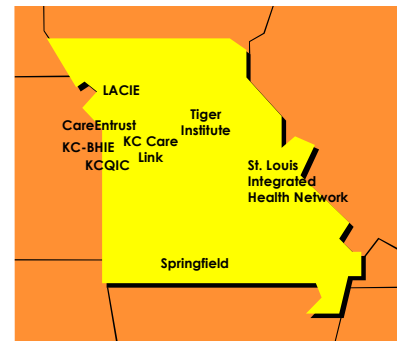
Missouri HIE activity is relatively nascent and characterized by local, privately funded, and largely independent initiatives. In varying stages of development, the initiatives have been active partners and participants in the statewide HIE planning activities to date.

These HIE efforts are predominantly overseen by boards of directors or advisory groups comprised of local stakeholders, health care leaders, and representatives of organizations that plan to participate in the HIE. In addition, they tend to have informal jurisdictions based largely on

geographic boundaries. While these efforts share a common mission, they vary in their technical approach, stage of technical development, and ability to share clinical data.

A brief overview of the known initiatives appears below. **Figure 15** depicts their geographic locations. The descriptions reflect publicly available information about each initiative as well as information gathered during stakeholder interviews that were part of the MO-HITECH HIE strategic planning process.

**Figure 15. HIE Initiatives**



- **CareEntrust:** CareEntrust is an independent, not-for-profit organization representing two dozen Kansas City-based employers and over 100,000 employees and their dependents. CareEntrust's mission is to make available a longitudinal view of patient information for consumers and health care entities to improve health care quality, efficiency and safety.
- **eHealth Align:** The Mid-America Regional Council (MARC), the Metropolitan Planning Organization and association of city and county governments for the bi-state Kansas City metropolitan area, is assisting a broad coalition of health care stakeholders in Kansas City and the surrounding community in the development of a regional HIE.
- **Kansas City Quality Improvement Consortium:** The Kansas City Quality Improvement Consortium (KCQIC) was formed by the UAW-Ford Community Health Care Initiative and community stakeholders in November 2000 in response to the growing emphasis on evidence-based medicine. KCQIC is a not-for-profit whose membership includes stakeholders who share the goal of quality health care. KCQIC is one of 24 Chartered Value Exchanges supported by the Agency for Healthcare Research and Quality (AHRQ).
- **KC CareLink:** KC CareLink is a not-for-profit electronic HIE linking health care providers in its bi-state community. KC CareLink provides a 24/7 resource to over 500 users at 19 separate sites, maintains a database with over 185,000 unduplicated patients, and supports software applications to create, manage and report on thousands of referrals between safety net providers each year.
- **Lewis and Clark Information Exchange:** The Lewis and Clark Information Exchange (LACIE) was created as a tool to collect information from member organizations and, ultimately, allow for lifetime health records within Northwest Missouri, Northeast Kansas, Southeast Nebraska, and Southwest Iowa. LACIE uses an interoperability solution facilitating connectivity between multiple venues to electronically deliver relevant personal health information in a secure manner.
- **Midwest Health Initiative:** The Midwest Health Initiative (MHI) is a multi-stakeholder organization that brings together physicians, hospitals, business, labor and consumer representatives. MHI has built a database of de-identified health care claims, including pharmacy, and eligibility information on more than 1.2 million lives from the St. Louis Metropolitan Statistical Area and 16 western counties.
- **St. Louis Integrated Health Network:** This project focuses on the development of a Network Master Patient Index across 18 participating provider organizations, including all four area

FQHCs, both area medical schools, St. Louis City and County Departments of Health, and nine local hospital emergency departments in areas of high need.

- *Tiger Institute for Health Innovation:* In September 2009, the University of Missouri and Cerner Corporation announced their partnership with plans to create the Tiger Institute for Health Innovation. The Tiger Institute is a public-private collaboration that will work on research and development projects in addition to managing much of the health system's IT efforts.

### **1.8.3 Regional Extension Center**

The Missouri HIT Assistance Center (the Center) was notified that it would be awarded \$6.8 million to serve as the state's REC in April 2010 under the federal Health Information Technology Regional Extension Center Cooperative Agreement Program. The Center's goal is to assist 1,167 priority primary care providers to achieve meaningful use by 2012. The Center operates in collaboration with the University of Missouri Department of Health and Informatics and the Center for Health Policy. The University has partnered with a number of organizations to serve as service providers under its grant, including:

- The Missouri Telehealth Network;
- The Department of Family and Community Medicine, University of Missouri School of Medicine;
- Primaris (Missouri's Medicare Quality Improvement Organization);
- The Missouri Primary Care Association (MPCA);
- The Kansas City Quality Improvement Consortium; and
- The Hospital Industry Data Institute (a subsidiary of the Missouri Hospital Association).

The Center and its partner organizations have been active participants in the MO-HITECH initiative; leadership from several organizations served as MO-HITECH Advisory Board members and workgroup co-chairs, and participated actively in workgroup meetings. The Center has an ex-officio, non-voting seat on the Missouri HIO board.

The Center's strategy to satisfy ONC provider adoption targets is to leverage its partners' existing relationships with providers. For example, Primaris has relationships with providers who participated in the CMS Doctor's Office Quality - Information Technology (DOQ-IT) initiative, while the MPCA has relationships with FQHCs as a result of supporting their EHR adoption efforts.

MO HealthNet recognizes the critical role that the Center will play in promoting EHR adoption and meaningful use among small and solo primary care practice physicians, many of whom are Medicaid providers and may be located in rural areas. MO HealthNet is committed to working with the Center to identify opportunities for collaboration, provider education, and technical assistance, among others. As such, the Center has collaborated with MO HealthNet in its planning and communications efforts related to implementing the Medicaid EHR Incentive Program.

In September 2010, the Center was awarded \$660,000 from ONC to support EHR adoption among critical access and rural hospitals within Missouri. The Center plans to partner with the Hospital

Industry Data Institute (a subsidiary of the Missouri Hospital Association) to serve 55 critical access and rural hospitals around the state.

On November 1, 2010, the Center announced 12 EHR companies as potential vendors for negotiated group purchasing arrangements. The 12 EHR vendors include: Allscripts Professional, Amazing Charts, Cerner, e-MDs, eClinicalWorks, EHS, GE Centricity, Greenway, McKesson Practice Partner, Pulse, NextGen and Sage Intergy.

To learn more about the Center, please visit <http://www.ehrhelp.missouri.edu/>.

#### **1.8.4 Stakeholder Involvement and Review**

MO HealthNet planning activities with respect to the implementation and administration of the Medicaid EHR Incentive Program have been conducted in partnership with many stakeholder groups across the state. In particular, MO HealthNet has provided regular monthly updates at the Missouri HIO Board of Directors meetings; these meetings are open to the public and the Board represents a diverse group of health care leaders. In addition, MO HealthNet shared the draft SMHP with the MO-HITECH stakeholder list that includes over 500 interested stakeholders, as well as with the Center, the Missouri Hospital Association, the Missouri Primary Care Association, the Missouri Health Advocacy Alliance, and the Missouri HIO. MO HealthNet received a number of comments from stakeholders and incorporated revisions to address questions and feedback.

## **2. Section B: Missouri’s “To-Be” HIT Landscape**

### **2.1 Overview**

MO HealthNet has established the following five-year goals to help Missouri’s providers and patients realize the benefits of health IT and health information exchange (HIE). These goals include:

- Increasing provider adoption and utilization of electronic health records (EHRs) and participation in HIE activities;
- Improving MO HealthNet operating efficiency and increasing accountability in program administration; and
- Improving patient outcomes, overall member wellness, and the public health.

In addition to these goals, MO HealthNet is working toward achieving its vision for an expanded and reengineered Medicaid Management Information System (MMIS). The MMIS will be a central component of efforts to support Medicaid providers in participating in the Medicaid EHR incentive program and ultimately achieving meaningful use. In addition, MO HealthNet is actively working with its sister agencies—the Department of Health and Senior Services (DHSS) and Department of Mental Health (DMH)—to coordinate activities and evolve a governance structure capable of program administration and oversight consistent with overall goals and objectives.

A brief description of the five-year goals and respective strategies to achieve those goals is outlined below. MO HealthNet will work with stakeholders to develop meaningful measures to quantitatively benchmark goals and establish progress as the program matures.

### **2.2 Five-Year Goals**

#### **Increase provider adoption and utilization of EHRs and participation in HIE**

MO HealthNet recognizes that provider adoption and utilization of EHRs is an initial step toward meaningful statewide HIE in Missouri; providers must use a certified EHR to be eligible for meaningful use incentive dollars and participate in the Missouri Health Information Organization (Missouri HIO). As described in the “As-Is” Landscape (Section A), a complete picture of EHR adoption among all Missouri providers and hospitals is not available. The MO HealthNet statewide provider survey provides a foundational component in the state’s efforts to effectively target provider outreach, education and other activities to stimulate continued adoption efforts.

In addition to efforts driven by survey results, MO HealthNet will continue to engage in collaborative partnerships with organizations such as the Missouri HIO, Missouri HIT Assistance Center (the Center), Missouri Primary Care Association, Missouri State Medical Association, Missouri Hospital Association, and others to promote EHR adoption and utilization. MO HealthNet has historically joined with these organizations and others to support programmatic objectives and goals. These organizations also offer a direct channel of communication to the state’s provider population; MO HealthNet will leverage such channels to conduct increasingly effective outreach. These organizations, along with MO HealthNet, have been active supporters of statewide HIE planning activities and coordination with MO HealthNet has been a regular and important topic. MO HealthNet will offer continued feedback and input, and participate in planning efforts as the Center and other stakeholders design and implement plans for physician training and outreach.



MO HealthNet also plans to support EHR adoption by offering a low-cost EHR solution (CyberAccess) to Medicaid providers. MO HealthNet is committed to EHR certification under the new federal guidelines and standards and is also exploring the opportunity to certify and offer CyberAccess to non-Medicaid providers for a nominal fee to help achieve the Missouri HIO's goal that no provider is "left behind." In addition, integrating Personal Health Record technology will be a key asset to engaging consumers and patients as active partners in their care. MO HealthNet is also monitoring Nationwide Health Information Network (NHIN) development and will ensure its efforts will be compatible with the NHIN to support nationwide HIE goals and objectives.

MO HealthNet and the Missouri HIO have begun initial conversations regarding a single statewide provider registry to fulfill the needs of the State Medicaid Agency, other state departments (including, but not limited to the Department of Health and Senior Services, the Department of Insurance, Financial Institutions and Professional Registration and the Department of Mental Health) and the statewide HIE effort. MO HealthNet recognizes the importance of a provider registry to the implementation and administration of the Medicaid EHR Incentive Program and is considering how a registry might also be leveraged for purposes of statewide HIE. MO HealthNet plans to move forward with procuring a provider registry for purposes of the EHR Incentive Program and will include additional detail about a potential partnership or utilization by the Missouri HIO in future iterations of the plan.

### **Improve MO HealthNet Operating Efficiency and Increase Accountability in Program Administration**

As MO HealthNet designs and implements the Medicaid EHR Incentive Program, it will identify and examine opportunities to improve operating efficiency and overall accountability within program administration of the program. Specifically, MO HealthNet will:

- Automate processes and procedures where possible to eliminate the need for faxing/mailing information within and outside of the agency;
- Assess current MMIS capabilities and policies, removing inconsistent policies and aligning programmatic efforts to support MO HealthNet's HIE goals and objectives;
- Identify MMIS capabilities in need of alignment with goals;
- Utilize CyberAccess and the Missouri HIO to minimize mail and fax requests among MO HealthNet and "out of network" providers;
- Upgrade the provider enrollment system and procure a provider registry to facilitate effective program-wide administration (this will be done through the separate but parallel MMIS re-engineering effort currently in progress via an Advanced Planning Document);
- Define staff roles and responsibilities with respect to the Medicaid EHR Incentive Program, allocating appropriate staff resources to administer and oversee the program. MO HealthNet will seek additional support through contractors where appropriate;
- Ensure the privacy and security of members' health information; and
- Continue monitoring and oversight activities to ensure program integrity.

## **Improve patient outcomes, overall member wellness, and the public health**

MO HealthNet is committed to improving both provider and patient access to health information while identifying opportunities for patient education, care coordination, and the management of chronic health conditions. MO HealthNet also has a demonstrated commitment to supporting providers as they offer high-quality and accessible care, as well as relying on the expertise and guidance of consumers as it develops policies and programs. Working with the Missouri HIO will enhance state efforts to ensure Missourians have timely access to their health information, ultimately empowering Missourians to take an increasingly active role in their health care. The availability of MO HealthNet data via the Missouri HIO will also facilitate broader care coordination among patients and their physicians. MO HealthNet is also working closely with the DHSS to ensure its public health goals will be served through the MO HealthNet program, as well as through statewide HIE efforts.

Approximately 17 percent of Missouri's residents are currently Medicaid beneficiaries; Medicaid coverage is expected to increase to over 20 percent of Missouri residents in the next five years under federal health care reform. This growth provides additional urgency for MO HealthNet efforts to support EHR adoption and participation in statewide HIE as crucial components to managing and improving the population's health.

### **2.3 *Medicaid Technical Infrastructure & Environment***

The current Medicaid infrastructure employs service-oriented architecture (SOA) as a means to achieve reuse and sharing of applications, interoperability, use of standards, seamless interfaces, and reduction in costs for system development and maintenance. The Department of Social Services (DSS) relies on a service-oriented process (SOP) as part of its larger health IT strategy; SOP will ensure alignment among state business processes and enabling IT systems so that they may work together to deliver real value to the end-user.

The DSS SOA long-term strategy will provide users access to web services on a standards-based and technology-neutral network. In an SOA approach, reusable business/health IT assets are connected using a "service bus" that extends health care information to external partners, such as Google Health and Microsoft HealthVault.

As part of the long-term strategy, MO HealthNet assessed the design of the MMIS and the best way to update and enhance its functionality. Consultants were engaged to review system elements and make recommendations. Activities included: a review of current functionality; a Medicaid Information Technology Architecture (MITA) gap analysis; an analysis of the options; and recommendations. Ultimately, the decision was made to reengineer the current system, based on an evaluation of risk and cost, as well as minimizing the disruption to providers.

Reengineering plans include the following components: a relational database management system; HIPAA II data exchange and code sets; centralized prior authorizations; correspondence imaging and automated workflow; browser-based end-user screens; a rules engine; increased claims history retention; audit trails; a multi-tier benefit package; enterprise service bus interface; online real-time transactions processing; web services technologies and standards for advanced applications; metadata management; EHRs; and other modules.

Ultimately, it is MO HealthNet's goal to develop a health IT architecture that also builds on federal meaningful use requirements by:

- Promoting best practices and use of medical evidence;
- Promoting accrual of reporting positive health care outcomes and reporting patient outcomes;
- Promoting exchange of actionable clinical data; and
- Promoting efficiencies in provision of services.

### EHR Expansion & Medicaid Information Technology Architecture (MITA)

DSS plans to build upon and expand the current EHR capabilities available via the Clinical Management Services and System for Pharmacy Prior Authorization (CMSP) and CyberAccess tools. Future capabilities are planned to assist in the capture and deployment of medical information to providers, hospitals, pharmacies, and participants throughout Missouri for the purposes of statewide care coordination and improvement in patient outcomes.

**Figure 16** represents MO HealthNet's EHR roadmap, detailing the products and project timeline included in the EHR expansion. The migration path begins in year 2010 and moves progressively toward SOA technology implementation and is aligned with the MITA business maturity model.

**Figure 16. EHR Roadmap**

| Year | MITA 2.01 Roadmap            |                          |                            |                      |                              | MITA    |
|------|------------------------------|--------------------------|----------------------------|----------------------|------------------------------|---------|
| 2012 | Multi-Tier Benefit Packages  |                          | Broader SOA Services       |                      | National Exchanges           | Level 5 |
| 2011 | ICD 10 Clinical Data         | 5010 Formats             | SOA Services               | Unlimited Claim Size | Regional Exchanges           | Level 4 |
| 2010 | Provider Web Services        | Participant Web Services | Rules Engine               |                      | Broader EHR Collaboration    | Level 3 |
| 2009 | Workflow & Imaging           | Real-time Adjudication   | Browser MMIS               | DB2 Solutions        | ACS/EHR Exchanges            | Level 3 |
| 2008 | Interoperability & Standards |                          | Modernization Applications |                      | Modernization Infrastructure | Level 2 |
| 2007 | DDI Services                 |                          | IV&V Services              |                      | Modernization Planning       | Level 1 |
| 2006 | MITA SSA                     | CMS APD                  | State RFP                  | DDI Award            | IV&V Award                   | Level 1 |

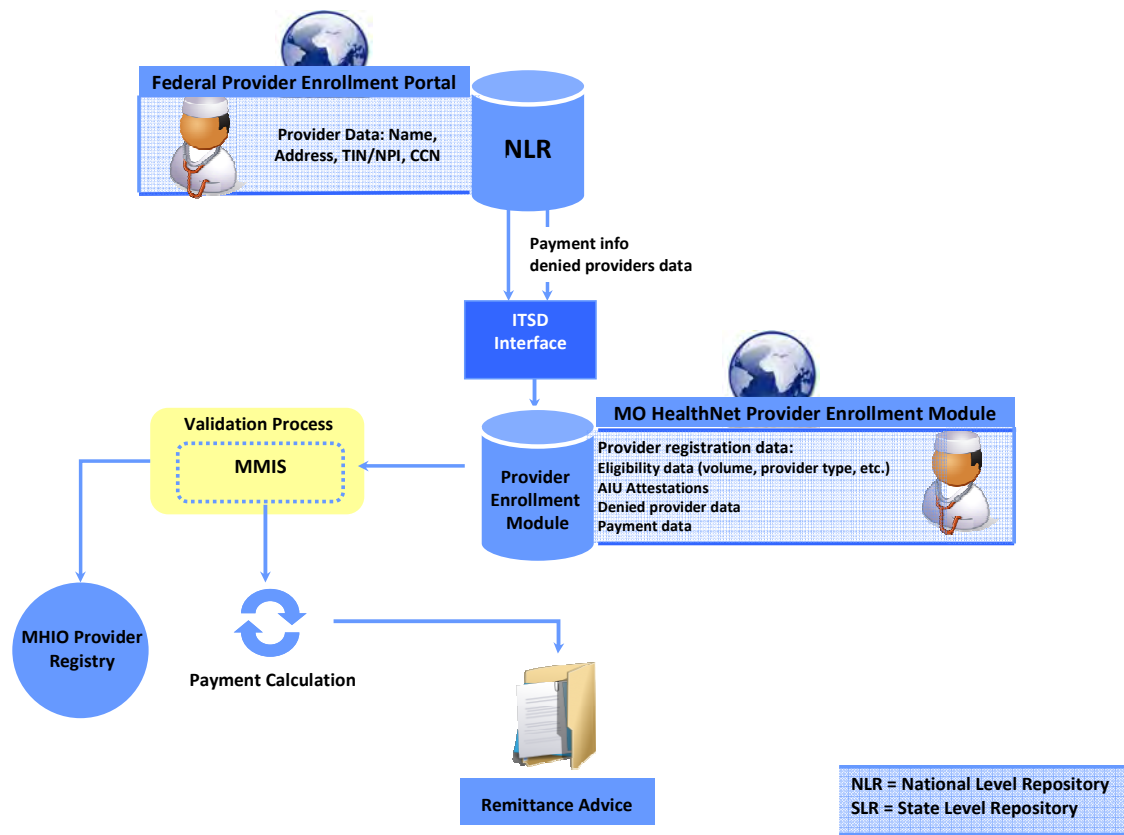
## 2.4 ***EHR Incentive Program Administration***

MO HealthNet is committed to supporting providers in their pursuit and achievement of meaningful use. In an effort to implement and administer the Medicaid EHR Incentive Program efficiently and effectively, MO HealthNet plans to leverage existing systems and implement new systems where necessary. The primary systems that MO HealthNet will use to administer the Medicaid EHR Incentive Program are described below and are explained in greater detail in Section C.

- **NLR (National Level Repository):** The NLR is the federal database that serves as the primary point of entry into the Medicaid and Medicare EHR Incentive Programs. All eligible professionals (EPs) and eligible hospitals (EHs) seeking incentives must first enroll via the NLR. MO HealthNet has completed testing with the NLR and plans to implement the EHR Incentive Program by February 1, 2011.
- **Provider Enrollment Interface Module:** The provider enrollment interface module will be the central component of Medicaid EHR incentive program administration. Developed specifically for the Medicaid incentives the module will mirror NLR functionality for the Medicare EHR Incentive Program. It will be the point of entry (intake) and program dashboard for Medicaid incentives for both EPs and EHs and as such, will offer providers an interface to submit, review, and revise information stored in their profiles. Using web call functionality, it will communicate with a number of existing and planned technologies, including the MMIS, CyberAccess, eMomed, and the NLR. More specifically, the module (upgraded through parallel MMIS reengineering efforts) will capture state-collected data elements as part of the intake process and upload payment and eligibility information into the NLR. EPs and EHs will enter program data elements including attestation information pertaining to eligibility; Adopt, Implement and Upgrade (AIU); and meaningful use. InfoCrossing Healthcare Services is managing the respective interface development and programming activities.
- **Information Technology Services Division (ITSD) Interface:** Located within the Office of Administration, ITSD will serve as the conduit for information exchange between the NLR and the state's MMIS. ITSD has an established connection with CMS for the electronic transfer of information and has been identified as the most efficient means of data exchange. The NLR file transfer will be accomplished via a daily batch file transfer from the NLR using Connect:Direct, one of the specified systems.
- **Medicaid Management Information Systems (MMIS):** The MMIS is one of the primary repositories of provider information. MMIS capabilities will be leveraged to fulfill a range of functions, including the provision of data necessary to enable payment administration by the state's fiscal intermediary, InfoCrossing Health Services.
- **Provider Registry:** The provider registry will serve as the master source of timely and authoritative MO HealthNet provider information and demographics to be housed in the MMIS provider enrollment module. It will also include eligibility and enrollment from the Medicaid EHR Incentive Program Interface Module, housed in the grants management subprogram of the state's ARRA reporting tool. The provider registry will facilitate secure and accurate routing among MO HealthNet and providers by supporting the Provider Directory of the Missouri HIO's health information exchange. MO HealthNet is currently exploring how the provider registry may be leveraged to serve as or support the Missouri HIO's provider directory.

As the fiscal intermediary, InfoCrossing Healthcare Services will prepare the data elements for transmission to CMS via an established link between ITSD and CMS. In addition, ITSD is undertaking the vendor analysis for the program that will be used for grant administration. While all processes will be automated, should technical development of the intake components not be completed in the necessary timeframe, the contingency plan is to use a manual process to capture and enter these data into the system. **Figure 17** represents MO HealthNet’s vision for how the various components described above will interact to facilitate administration of the Medicaid EHR Incentive Program.

**Figure 17. MO HealthNet NLR Interface**



## 2.5 Health Information Exchange

The Missouri HIO is leading the state’s efforts to create, support, and sustain statewide HIE among Missouri’s providers and patients. MO HealthNet is committed to working collaboratively with the Missouri HIO and its stakeholders—physicians, hospitals, consumers, laboratories, pharmacies, health plans, and others—to create a consensus-based HIO that will facilitate the secure exchange of health information.

MO HealthNet is a particularly active partner with respect to the technical design of the statewide HIE network’s infrastructure and core services to ensure its compatibility with the Missouri HIO.

Like all participants in the Missouri HIO, MO HealthNet will need to develop an interface to the statewide HIE network to send and receive information among its enrolled providers as well as unaffiliated non-Medicaid providers. MO HealthNet is currently working with the Missouri HIO to understand how a common provider registry may benefit both organizations, as well as other state agencies. MO HealthNet plans to move forward with procuring the precursor provider enrollment tool for the provider registry in early 2011 through an Advanced Planning Document (APD) for the parallel and ongoing MMIS reengineering process. It will continue to explore how vertical scaling of the registry function may be leveraged by the Missouri HIO and other state entities. MO HealthNet will then determine respective pro rata costs to be approved by CMS. The Missouri HIO is concurrently in the midst of an RFP for a technical services partner; it will analyze bids with respect to the provider registry component to determine the best path forward in partnership with MO HealthNet.

Beyond active participation and presence on the Missouri HIO Board, MO HealthNet is committed to membership in the Missouri HIO to ensure its providers have access to information available through the statewide HIE network. Ultimately, Medicaid beneficiaries will also be able to access their health information through a web portal/personal health record (PHR). MO HealthNet anticipates participating in the Missouri HIO and, as such, will pay its fair share for participation; it is currently anticipated that the Missouri HIO will adopt a subscription fee model, but this has yet to be finalized.

### 3. Section C: Missouri's EHR Incentive Payment Program Administration

#### 3.1 Overview

MO HealthNet views the federal investment in EHR adoption as an opportunity to expand its existing vision and framework for the delivery of health care to all Missourians. MO HealthNet is concurrently submitting the Implementation-Advanced Planning Document (I-APD). Administrative funding provided via the I-APD is vital to the development of the Medicaid EHR Incentive Program. As with most states, resources for new programs are severely constrained; therefore, MO HealthNet views CMS support as a critical component of its implementation plan.

In an effort to anticipate market demand for the Medicaid EHR Incentive Program, MO HealthNet reviewed recent provider claims information for all eligible MO HealthNet provider types to *estimate* the number of eligible professionals (EPs) and eligible hospitals (EHs). To arrive at the estimate below, MO HealthNet used the average of aggregated encounter data by provider type (e.g., physicians, nurse practitioners) over a 90-day period. A 90-day period was chosen to account for utilization variation in any one month. These data will be reflected in the I-APD and CMS-37.

Based on this methodology, MO HealthNet estimates approximately 1099 providers and 90 hospitals are eligible for EHR incentives. The MO HealthNet provider survey (described in Section A) provided additional insight into the number of providers who intend to apply for Medicaid or Medicare EHR incentives.

**Figure 18. Missouri Eligible Providers and Hospitals (estimated)**

| Provider Type                       | Providers & Hospitals<br>(Total) | Eligible Providers & Hospitals<br>(Estimated) |
|-------------------------------------|----------------------------------|---|
| <i>Eligible Professionals (EPs)</i> |                                  |   |
| Physician (MD)                      | 7543                             | 598   |
| Physician (DO)                      | 510                              | 125   |
| Nurse Practitioner                  | 880                              | 73  |
| Certified Nurse Midwife             | 9                                | 5   |
| Dentists                            | 633                              | *   |
| Managed Care EPs                    |                                  | 298   |
| <b>Total</b>                        | <b>9575</b>                      | <b>1099</b>                                   |
| <i>Eligible Hospitals</i>           |                                  |   |
| Acute Care Hospitals                | 78                               | 71  |
| Children's Hospitals                | 4                                | 4   |
| Critical Access Hospitals           | 35                               | 15  |
| <b>Total</b>                        | <b>117</b>                       | <b>90</b>                                     |

\*Projections for dentist eligibility are not available at this time. Most MO HealthNet dental services are provided by managed care organizations (MCOs). As such, they are not supported by discrete encounter data. MO HealthNet is currently working with the MCOs to determine the best way to calculate and validate eligibility threshold data for dentists.

The state has focused on a thoughtful and transparent planning process related to administering the Medicaid EHR Incentive Program. This process is predicated on the following key objectives:

1. Charter a vision for statewide health IT activities that ensures Missouri's providers are supported in their pursuit of meaningful use.
2. Contribute to the state's current health IT efforts such that patients will be empowered to take a greater and increasingly direct role in the management of their health care and the care of their loved ones.
3. Pursue planning and implementation activities with the end goal of high quality, patient-centered care for all state residents.
4. Leverage existing health IT and programmatic infrastructure to ensure efficient program implementation, administration and oversight.
5. Ensure accountability and appropriate stewardship of State and Federal funds.

In developing the process and plan for program administration, MO HealthNet activities and planning focused on the following components:

- Outreach and Provider Support
- EHR Incentive Program Eligibility
- Pre-Qualification Process
- Verification Activities in Year One
- Verification Activities in Subsequent Years
- Payment Process
- Federal Reimbursement
- Appeals Process

### **3.2    *Outreach and Provider Support***

Missouri has established a variety of methods to increase awareness, provide education, and respond to questions regarding the Medicare and Medicaid EHR incentive programs. MO HealthNet operates a provider call center, operated through the Medicaid Management Information System (MMIS) vendor (InfoCrossing Healthcare Services). The call center has 25 staff and currently handles a volume of approximately 18,000 – 20,000 calls per month. Staff have been provided information about the incentive programs and requirements related to meaningful use and MO HealthNet plans to continue active staff education as program planning and implementation advances.



While call center staff handle a significant volume of questions, MO HealthNet staff are responsible for handling complex inquiries. Initially, call center staff, along with MO HealthNet staff as appropriate, will be used to respond to questions and requests for EHR Incentive Program information. The current practice within MO HealthNet is to conduct training sessions with InfoCrossing staff when programmatic, payment, or eligibility changes are implemented; MO HealthNet plans to offer similar training sessions for the EHR Incentive Program. MO HealthNet anticipates providing staff with scripts, as appropriate, to respond to provider inquiries relevant to the EHR Incentive Program.

In addition to call centers, Missouri relies on a number of different channels to disseminate information and engage with the provider community. Program bulletins are sent as needed and program information is posted to the eMomed portal. MO HealthNet partners with external stakeholders to speak at their respective events (e.g., the Missouri Primary Care Association, Missouri Hospital Association, Missouri State Medical Association). These efforts are in addition to webinars and teleconferences that are directly offered to providers; it is estimated that MO HealthNet offers at least 100 information or training sessions annually. Other educational partners include the Missouri Rural Health Clinic Association, the Missouri Association of Osteopathic Physicians & Surgeons, the Missouri HIT Assistance Center, etc. As such efforts continue, information relevant to the EHR Incentive Program will be incorporated as appropriate. MO HealthNet anticipates continuing and improved use of these communication outlets to communicate with Medicaid providers about the EHR Incentive Program

As part of the planning process for the Medicaid EHR Incentive Program, MO HealthNet has engaged in a series of meetings and briefings with both internal and external partners. Such meetings have included representatives from the Missouri Primary Care Association, the Missouri HIT Assistance Center, the Missouri Hospital Association, managed care organization plan representatives and others. These meetings have focused on providing information about MO HealthNet plans for program launch and administration, as well as seeking feedback on a number of issues, including the development of the provider survey, data validation sources, coordination of communication efforts, and other program components. Information sharing efforts also include providing program updates at Missouri Health Information Organization (HIO) board meetings,

MO HealthNet actively solicited stakeholder review of and comment on the draft SMHP as well as making a review copy available on the website. MO HealthNet addressed all stakeholder comments and concerns. As the enrollment process advances, MO HealthNet will continue to work with its partners to disseminate information about the incentive program and encourage participation among eligible providers.

MO HealthNet engages in ongoing efforts to coordinate activities with the HIT Assistance Center as appropriate. Such efforts include joint participation in speaking engagements, sharing communication materials, participation in biweekly planning calls, consulting on EHR incentive programmatic questions, etc.

Finally, MO HealthNet has sent emails to its distribution list of MO HealthNet providers announcing the EHR Incentive Program and available resources; MO HealthNet plans to continue such blasts as programmatic milestones are met (e.g., program launch). **Figure 19** identifies major communications planning milestones.

**Figure 19. MO HealthNet Communications Planning Activities**

| <b>Communications Activity</b>                              | <b>Month/Year</b>     |
|---|-----------------------|
| Launch MO HealthNet EHR Incentive Program website           | July 2010             |
| Release draft SMHP for stakeholder review                   | October 2010          |
| Email blast with provider survey results and program update | November 2010         |
| Open meeting to present provider survey results             | November 2010         |
| EHR Incentive Program outreach to partners                  | Ongoing               |
| Develop joint communications pieces with partners           | Ongoing               |
| Email Blast: Pre-Launch                                     | December/January 2010 |
| EHR Incentive Program webinar for potential enrollees       | January 2010          |
| Email Blast: Program Launch                                 | January 2011          |
| EHR Incentive Program webinar for enrollees                 | January 2011          |
| Email Blast: Accepting attestations via portal              | March 2011            |
| Email Blast: Begin issuing provider payments                | April 2011            |

In addition to the activities described above, MO HealthNet developed a Medicaid EHR Incentive Program website (<http://www.dss.mo.gov/mhd/ehr>) that includes a fact sheet, frequently asked questions, resources, and other materials. Materials and tools have been available via the website beginning in July 2010 and are updated regularly; MO HealthNet will link to available CMS tools (e.g., provider eligibility tool) from this site. MO HealthNet will also have a link on its Medicaid EHR Incentive Program website to the NLR, encouraging Missouri providers to participate in the program. Basic program information is also available on the Missouri Office of Health Information Technology (MO-HITECH) website: [www.dss.mo.gov/hie](http://www.dss.mo.gov/hie). To facilitate interactive electronic communication, MO HealthNet has established a dedicated electronic mailbox to accept specific provider inquiries. To date, MO HealthNet has been able to respond to all inquiries within one business day and plans to maintain this quick turnaround.

### **3.3 Medicaid EHR Incentive Program Eligibility**

Determining patient volume is a critical component of the state's implementation plan. Medicaid encounters that comprise patient volume are defined consistent with the final rule and include encounters for which Medicaid paid in whole or in part, such as those within Medicaid fee-for-service and Medicaid waivers (e.g., Medicaid managed care organizations, Medicaid 1115 waiver programs, Programs of All-Inclusive Care for the Elderly, etc.). MO HealthNet will use the "encounter" option (as described in the final rule) for all eligible professionals. MO HealthNet is also actively coordinating with its border state, Kansas, with respect to EPs; of Missouri's eight border states, the most significant traffic across borders is in Kansas City and its surrounding areas. MO HealthNet intends to coordinate with all of its border states as the program matures.

#### **Eligible Professionals (EPs)**

Eligible professionals (EPs) will need to have a number of items verified, including:

- A valid state license and respective credentials for provider type.

- A state-issued provider number.
- Verification that the provider is not an excluded provider using the federal OIG database
- Use of Medicaid encounter data as a proxy to verify that the EP is not hospital-based

To ensure that statutory threshold requirements are met, MO HealthNet will require that each provider:

- Attests to meeting Medicaid (or “needy individual”) patient volume requirements;
- Indicates whether the volume will be met via individual eligible provider data or group practice data (for EPs only); and
- Reports the numerator, denominator, and 90-day measurement timeframe.

EPs who work predominantly in Federally Qualified Health Centers (FQHCs) or Rural Health Centers (RHCs) may meet volume requirements based on “needy individual” patient volume. Needy individuals are defined as having met one of following criteria:

- Received medical assistance from MO HealthNet or MO HealthNet for Kids (Missouri’s State Children’s Health Insurance Program); or
- Were furnished uncompensated care by the provider; or
- Were furnished services at either no cost or reduced cost based on a sliding scale determined by the individuals’ ability to pay.

### **Federally Qualified Health Centers (FQHCs)**

FQHCs issues addressed in the planning process focused mainly on how incentives will be treated on cost reports and the physician assistant “so led” criteria. It is expected that many FQHC-employed providers will re-assign their incentive payment to their employer. MO HealthNet considers this a contracting/staffing issue between employer and employee that does not require MO HealthNet involvement. MO HealthNet is currently pursuing the appropriate action to ensure that reassigned payments would be excluded from FQHC cost reports and therefore would not need to be offset.

Missouri does not allow for Physician Assistant independent practice. Therefore, there are no FQHCs that conform to the “so led” requirements.

### **Eligible Hospitals (EHs)**

Eligible hospitals (EHs) will need to have a number of items verified, including:

- A valid state license.
- A Medicare CMS Certification Number (CCN) in the appropriate range.
- Average length of stay and Medicaid volume based on MO HealthNet data.

- A state-issued provider number.

For Acute Care and Critical Access Hospitals to meet the required 10 percent Medicaid volume, MO HealthNet proposes to allow hospitals to calculate volume based on inpatient bed days, as opposed to patient discharges. This proposal was developed in consultation with the Missouri Hospital Association and is likely to result in an additional 10 hospitals (90 versus 80) meeting volume thresholds. MO HealthNet believes this is consistent with the overall goals of the Medicaid EHR Incentive Program in that it supports the use of certified EHR technology among hospitals with a significant Medicaid population. Measuring this population by inpatient days reflects the infrastructure to deliver care to Medicaid beneficiaries, particularly within a high acuity setting, that would have more inpatient days as opposed to discharges. Should CMS require the use of discharge data, MO HealthNet is prepared to integrate either approach into its program implementation activities.

## **Border States**

Missouri shares a border with eight states (Iowa, Illinois, Kentucky, Tennessee, Arkansas, Oklahoma, Kansas and Nebraska). The most significant medical trading area is on the western Missouri-Kansas border, and is centered in the Kansas City metropolitan region. MO HealthNet's approach for eligibility verification will be agnostic as to the patient's state of residence. Therefore, any patient encounter will count toward a provider's eligibility threshold. At this time, MO HealthNet plans to collect this information through direct state inquiries from MO HealthNet to the respective State Medicaid Agency. As information is available about Missouri's border states' administration of their respective incentive programs, MO HealthNet may adjust its approach accordingly. MO HealthNet is coordinating and communicating with Kansas's Medicaid agency to discuss and evaluate opportunities for collaboration and partnership where possible.

### **3.4 EHR Incentive Program Pre-Qualification**

#### **Summary**

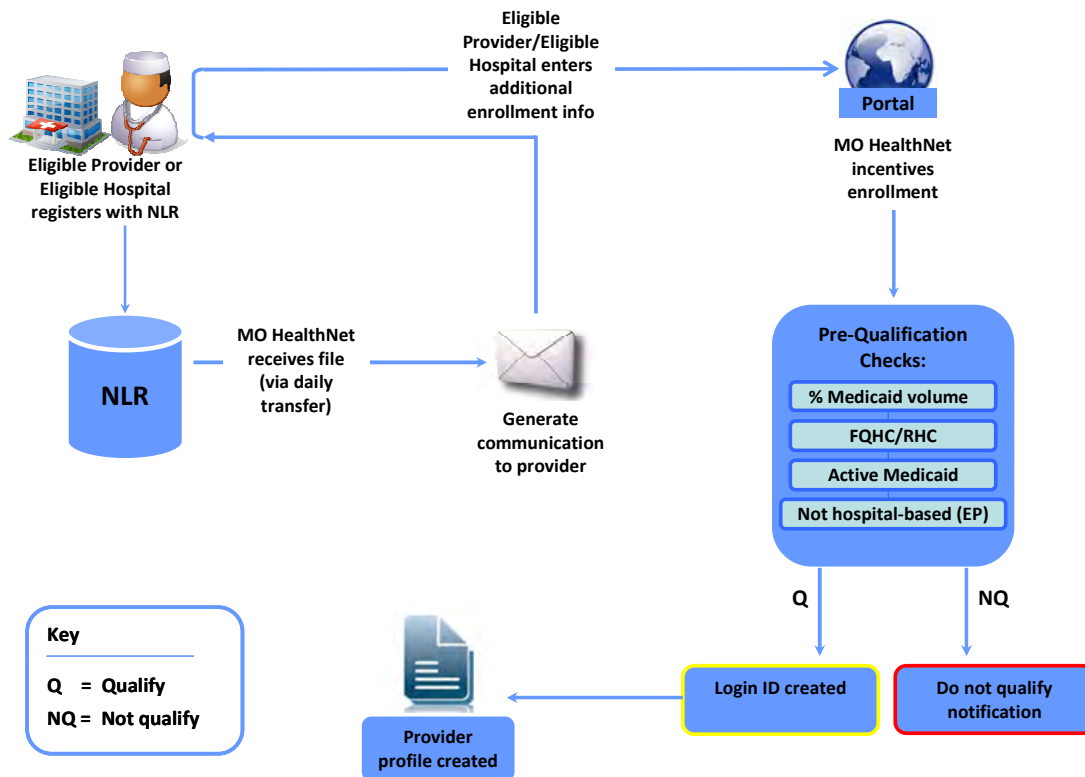
To streamline program administration, MO HealthNet has established a pre-qualification process for EPs and EHs. This process will enable MO HealthNet to verify providers are properly licensed and qualified providers and subsequently allow potential participants to begin the enrollment process as early as possible. The pre-qualification process will enable providers to establish eligibility in several areas, including: required Medicaid volume threshold ("needy individuals" for FQHCs and RHCs); active status as a MO HealthNet provider, and requirements for non-hospital based providers. MO HealthNet will conduct active outreach to providers who are currently members of FQHCs and RHCs to ensure they are aware of the opportunity to register individually with MO HealthNet.

The current web-based MO HealthNet provider enrollment tool will be upgraded to enable providers to easily access the NLR portal and register their interest in the EHR Incentive Program; the tool is currently undergoing remediation and corrective action in order to be completed by the second quarter of calendar year 2011. MO HealthNet is preparing an APD to the current MMIS re-engineering program to procure the provider enrollment tool. If an interested provider is a MO HealthNet provider, their inquiry will be directed to MO HealthNet for eligibility verification; upon confirmation, MO HealthNet will contact the provider to continue the enrollment process.

The sequencing of the pre-qualification process is illustrated in **Figure 20**.

**Figure 20. Provider Pre-Qualification**

**Pre-Qualification Flow**



**Pre-Qualification Steps**

Both MO HealthNet and potential participants must undertake a series of activities as part of the pre-qualification process. The activities are sequenced as follows:

- EP or EH enters information into the CMS National Level Repository (NLR) and indicates interest in participating in the Medicaid EHR Incentive Program.
- MO HealthNet receives a daily batch file transfer from the NLR using Direct:Connect, one of the specified systems.
- MO HealthNet generates a communication to the provider, requesting additional information and providing access to a Web portal to simplify data submission.
- The EP or EH uses the web-based provider enrollment tool to enter additional information, as outlined by the template fields in **Figure 21**. The template will include additional guidance for providers (i.e., how to calculate eligibility) in order to facilitate pre-qualification.
- Volume information will then be verified via the MMIS.

- For FQHCs, MO HealthNet explored the option to verify data maintained by the Missouri Primary Care Association. It was determined, however, that the state's data were better suited to meet the EHR Incentive Program verification needs.
- EH volume requirements can be verified through data that already reside in the MMIS, such as those derived from hospital cost reports.
- Other pre-qualification checks include ensuring the EP is an active MO HealthNet provider, is not hospital-based, and whether or not they plan to assign their payment to their employer. EH pre-qualification will also include ensuring that the EH has an active license and a CCN in the appropriate range. MO HealthNet will utilize information available through the Board of Healing Arts licensure database, Division of Professional Registration, Office of the Inspector General (OIG) database, Division of Professional Registry, and the MMIS for EP and EH pre-qualification checks.
- If the pre-qualification requirements are met, a login ID will be assigned and a provider profile created. When ready, the EP or EH will then be able to progress to the Adopt, Implement and Upgrade (AIU) process (outlined in the next section).
- If pre-qualification requirements are not met, the provider will receive a MO HealthNet communication to this effect.

MO HealthNet will maintain communication with CMS and other states in order to leverage interfaces and/or templates made available. In addition, MO HealthNet has a contingency plan for manual processes should the necessary technical components not be completed in the required timeframes.

**Figure 21. Pre-Qualification Template**

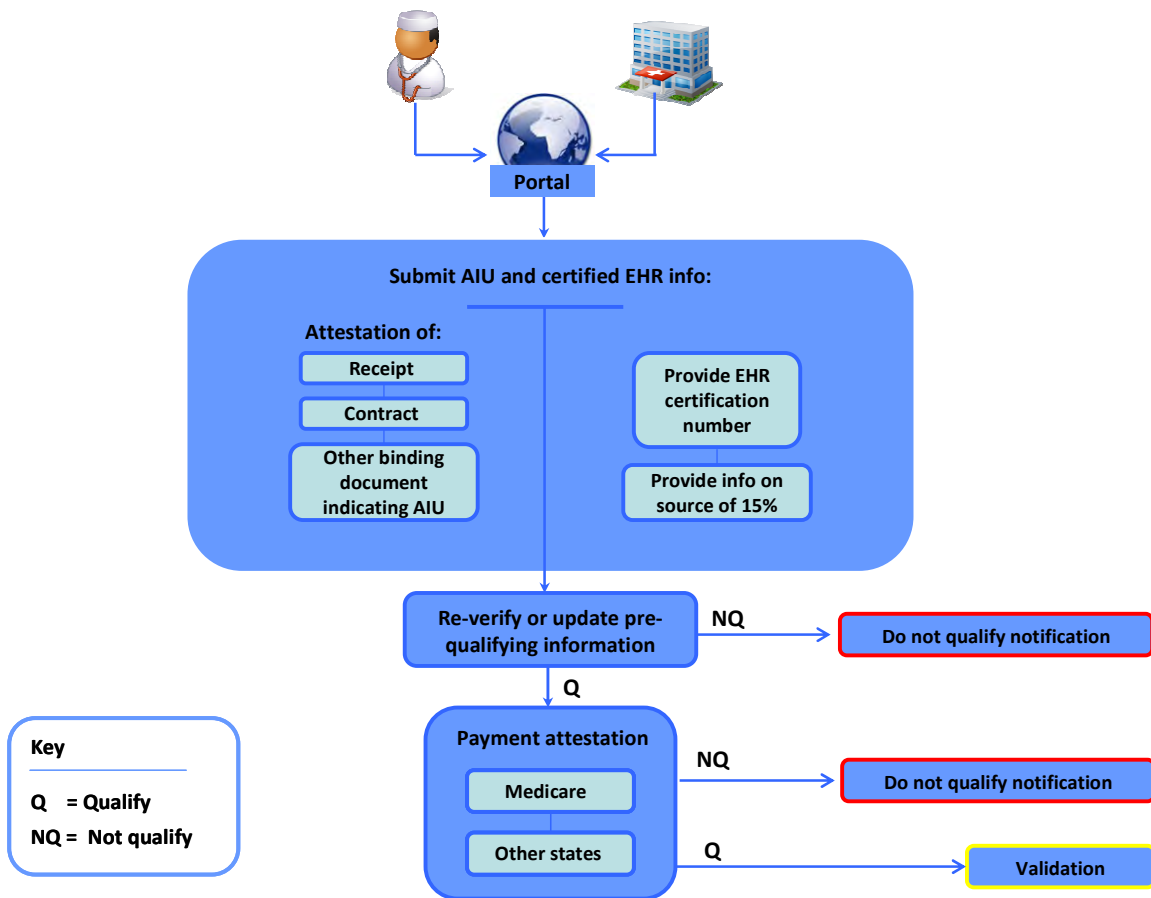
| Criteria              | Data Fields  | Attestation/Documentation Requirements  |
|-----------------------|--|---|
| <b>Provider Type</b>  | <ul style="list-style-type: none"> <li>• Hospital (Acute Care, Children's, Critical Access, Cancer)</li> <li>• MD/DO (not Pediatrician)</li> <li>• MD/DO (Pediatrician)</li> <li>• Nurse Practitioner</li> <li>• Certified Nurse Midwife</li> <li>• Dentist</li> </ul> | <p><i>EP Attestations:</i><br/>Meets provider type requirements<br/>Not hospital-based</p> <p><i>EH Attestation:</i><br/>ALOS &lt;25 days (acute care EH)</p>   |
| <b>Patient Volume</b> | <ul style="list-style-type: none"> <li>• Numerator</li> <li>• Denominator</li> <li>• 90-Day timeframe (selected by provider)</li> </ul> <p>Indicate whether using individual EP or group practice/clinic volume (EPs only)</p>   | <p><i>EP Attestation</i><br/>If practicing predominantly in FQHC or RHC, then "needy individual" volume</p> <p><i>EP/EH Attestation:</i><br/>Meets volume requirement</p> <p><i>EH Attestation:</i><br/>Medicare meaningful use</p> |

### 3.5 Verification Process: Year 1

#### Summary

It is the expectation that most, if not all, Missouri providers who enter the program in calendar year 2011 will do so by demonstrating they have met the AIU requirement, as outlined in the meaningful use final rule. Therefore, the verification workflow process for the program's first year focuses on accepting attestations for the AIU requirement. MO HealthNet is prepared to accept meaningful use attestations for professionals and hospitals deemed to have met Medicare meaningful use requirements. The Year One workflow process is outlined in **Figure 22**. Subsequent year verifications will be outlined in the next process flow.

**Figure 22. Verification Process in Year 1**



### **Verification Process Steps**

The AIU verification process includes the submission of attestations and documentation, outlined below and reflected in **Figure 23**:

- Provide attestation for certified EHR technology purchase or upgrade (or of binding agreement to purchase or upgrade). Providers will be notified that these documents must be available for audit purposes. For hospitals that have met Medicare meaningful use requirements, MO HealthNet will accept an attestation through the “deeming” component of the final rule.
- Provide the EHR Certification Number, which CMS has indicated is in development.
- Provide the source of the required 15 percent contribution for EPs.
- Update, as necessary, information contained in the provider profile (gathered during the pre-qualification process).
- The EP will also attest that payment is not being received either from another state’s Medicaid EHR incentive program or from the Medicare EHR Incentive Program.
- If at any point a requirement is not met, the provider receives a MO HealthNet communication explaining the reasons for which they do not meet program requirements.

### **Additional Information Regarding Required 15 Percent Contribution**

Per statutory requirements, MO HealthNet will require attestation for the 15 percent net average allowable cost (NAAC) requirement that must be borne by EPs. Such attestation will require the maintenance of documentation similar to that maintained for all other attestations and will be subject to audit and oversight efforts. MO HealthNet plans to adapt the CMS-provided worksheets on the 15 percent contribution and make them available for providers on the MO HealthNet website.

Assuming a maximum payment for purchase and maintenance, this will result in a contribution of \$3,750 in the first payment year and \$1,500 in each subsequent year (second through sixth payment years). This contribution may consist of:

- Outlay for purchase and maintenance of certified EHR technology;
- Costs related to installation or upgrade of certified EHR technology; and
- Provider and/or staff training related to certified EHR technology and/or that relate to workflow redesign and process improvement efforts necessary to achieve meaningful use measures. MO HealthNet is currently working to develop a standard calculation for this item.

It is also MO HealthNet’s understanding that, while cash grants would not count toward the required 15 percent contribution, a number of other sources would. Examples of these sources include:

- Health Resources and Services Administration (HRSA) grants (e.g., FQHC Capital Improvement Program grants);



- Certified EHR technology made available to EPs as a result of being an employed provider; and
- Vendor-provided in-kind and/or software services.

**Figure 23. Adopt, Implement and Upgrade Template**

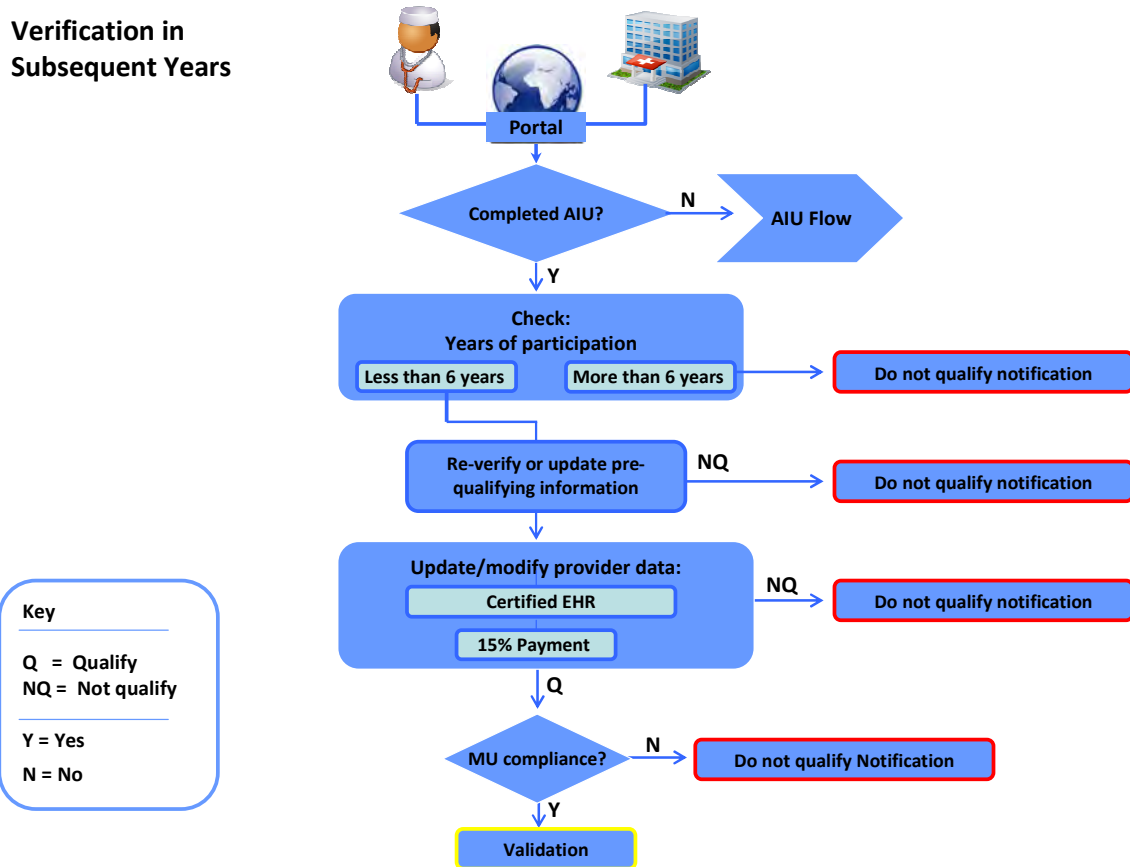
| Criteria                                 | Data Fields   | Attestation/Documentation Requirements   |
|--|---|--|
| <b>Adopt/<br/>Implement/<br/>Upgrade</b> | <ul style="list-style-type: none"> <li>• EHR Vendor</li> <li>• EHR Unique ID (supplied via ONC website for verification)</li> </ul>                                       | <i>EP Attestation:</i><br>Minimum contribution of \$3,750 toward purchase<br><i>EP Attestation:</i><br>No payment in excess of \$29,000 for EHR (non-state/local government)<br><i>Documentation:</i><br>EHR Proof of Purchase |
| <b>Payment</b>                           | <ul style="list-style-type: none"> <li>• Receiving Medicare EHR Incentives (EP only)</li> <li>• Receiving Medicaid EHR Incentives from another state (EP only)</li> </ul> | <i>EP Attestations:</i><br>Not receiving payment from another state or from Medicare   |
| <b>Payment<br/>(EP Only)</b>             | Tax ID Number (TIN)<br>(For payment assignment to employer)   | N/A  |

### 3.6 Verification – Subsequent Years

#### Summary

After the first program year, MO HealthNet anticipates a change in the workflow sequencing for participating professionals and hospitals. This change reflects two main factors. First, because program participation is limited to six years, verification of the number of years that an incentive has been provided must be made. Second, the system must determine compliance with current stage meaningful use criteria, as outlined in the final rule. The sequencing of these activities is outlined in **Figure 24**.

**Figure 24. Verification in Subsequent Years**



### Verification (Subsequent Years) Steps

Verifying EP and EH information in subsequent years involves a number of key workflows, as outlined by the following:

- EP or EH accesses the provider portal.
- If this is the first participation year for the EP or EH, then the AIU process outlined in **Figure 22** is completed.
- If it is not the first participation year for the EP or EH, then MO HealthNet will ensure that program participation has been five years or less (to comply with the six-year participation limit for Medicaid incentives).
- The EP or EH will then review their provider profile, consisting of information from the NLR and information provided during the pre-qualification process. Updates will be made as necessary.
- The EP or EH will then provide the EHR certification number and proof of the 15 percent contribution (EPs only).

- Finally, the EP or EH will transmit the required numerator and denominator information as part of the meaningful use requirements. MO HealthNet will continue to work with ONC and CMS to ensure system design will be adequate to meet the requirements of future stages of meaningful use.
- If at any point a requirement is not met, the provider receives a MO HealthNet communication explaining the reasons for which they do not meet program requirements.

CMS has indicated that dually eligible EHs will submit meaningful use attestations to CMS; once determined to fulfill this criteria for the Medicare EHR incentive program, EHs will be deemed to have also met this criteria for the Medicaid EHR incentive program.

### **3.7 Payment Process**

#### **Summary**

The payment process involves a number of important activities both to ensure appropriate stewardship of public funds as well as to leverage existing MMIS functionality. **Figure 25** represents the steps in the payment process.

In order to separately track expenditures, a separate accounting code will be used. The administrative funds related to the EHR incentive program will also be associated with a separate accounting code such that all funds associated with the Medicaid EHR Incentive Program can be appropriately budgeted for and reported on as required by CMS.

At this time, MO HealthNet does not anticipate designating an entity promoting adoption such that a provider could assign their incentive payment.

#### **Eligible Provider Payments**

MO HealthNet will calculate EP incentive payments in a manner that is consistent with both statutory requirements and federal rulemaking. The calculation will be based on NAAC as follows:

$$\text{Average Allowable Costs} - \text{Contributions from Other Sources} = \text{Net Average Allowable Costs}$$

In order to determine the NAAC, MO HealthNet must first be aware of any non-State and non-local contribution exclusively for technology costs received by the EP. This information will be contained in the provider profile.

#### **Medicaid Managed Care**

MO HealthNet will process managed care incentive payments as it does for all other payment activities. MO HealthNet does not intend to utilize the health plans for purposes of disbursement activities for health plan enrolled EPs. Therefore, managed care providers (i.e., eligible professionals) must enroll in Medicaid and submit an attestation for year one eligibility. Initially, MO HealthNet will be limited in its ability to verify managed care provider volume attestations due to limited granularity of encounter data. MO HealthNet plans to improve encounter data quality in order to automate and improve future validations.

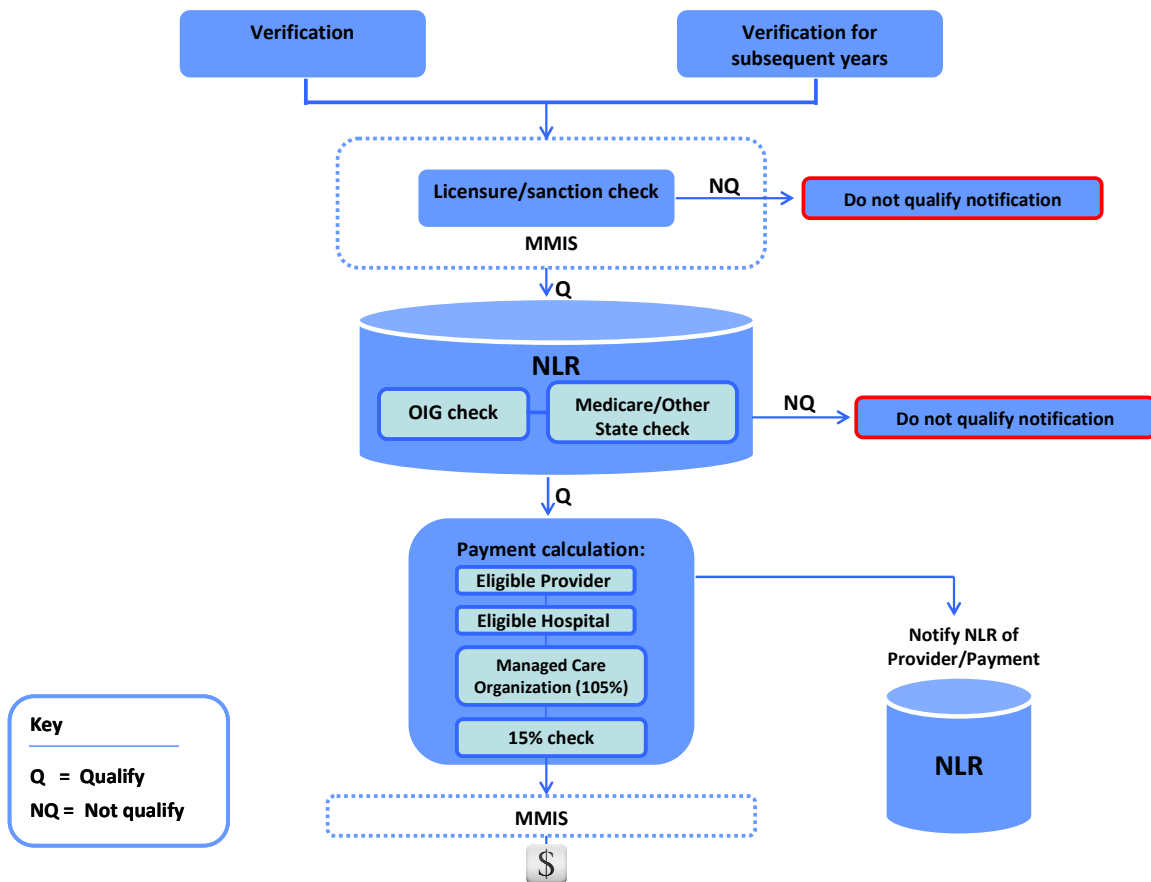
## Eligible Hospital (EH) Payments

In terms of determining the EH incentive payments, MO HealthNet will calculate the four theoretical years of payment in order to establish the aggregate payment cap. This calculation will be based on hospital cost report data that currently reside in the state's MMIS; MO HealthNet will work with CMS Regional Office financial staff on the calculation. A sample calculation will be included in the next iteration of the SMHP.

MO HealthNet plans to disburse EH payments over a three-year period with disbursements contingent upon successful attestation. After consultation with MHA, and considering CMS payment requirements (i.e., requirements that no annual payment may exceed 50 percent of the calculation and no two-year payment can exceed 90 percent), MO HealthNet plans to disburse on the following payment schedule:

- Year 1: 50 percent of aggregate payment amount
- Year 2: 35 percent of aggregate payment amount
- Year 3: 15 percent of aggregate payment amount

**Figure 25. Process for EHR Incentive Payments**



## Payment Process Steps

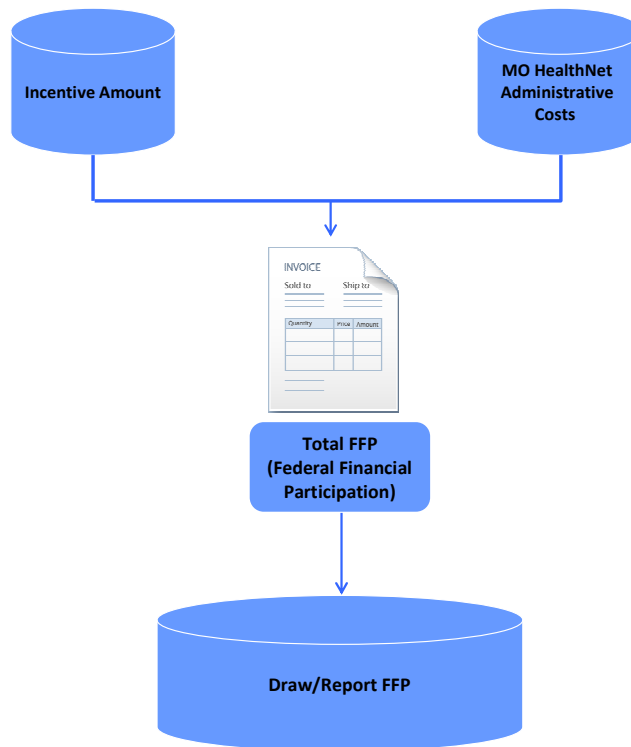
Whether it's the first or subsequent payment years, the process follows the same general steps:

- After the verification process, MO HealthNet will use state licensing and sanction records to ensure the provider is in good standing and is licensed under the appropriate provider type. These data (e.g., licensing, disciplinary action, sanctions) are updated by the Missouri Board of Healing Arts on a daily basis and are also included in the MMIS Master Profile.
- MO HealthNet will then confirm, via the NLR, the Office of the Inspector General (OIG) exclusion check, along with the verification that Medicare and payments from other states were not received by the EP.
- Once these checks are complete, a provider is deemed eligible to receive the incentive.
- Payments are calculated per the statutory guidelines and regulations included in the final rule.
- The required 15 percent contribution (EPs only) will also be re-verified at this stage.
- The payment amount will be calculated and routed to the State Medicaid fiscal agent, InfoCrossing, for disbursement. As the claims processor, InfoCrossing performs all accounting components as it relates to payment disbursement and tracking.
- Assuming a program start date of February 1, 2011, providers will submit attestation and related information toward the end of the first quarter. Payment will follow within 45 days, per CMS prompt payment guidelines.

MO HealthNet has also established a process for reimbursement as part of the Federal Financial Participation (FFP). This process is represented in **Figure 26** and includes the following steps:

- MO HealthNet identifies the incentive payment amount and administrative costs.
- MO HealthNet submits these amounts to CMS and is reimbursed.

**Figure 26. Federal Financial Participation**



### **3.8 Appeals**

#### **Summary**

MO HealthNet envisions the following circumstances may be raised by providers if incentive payments are denied or there is the belief that the incentive payment calculation was incorrect:

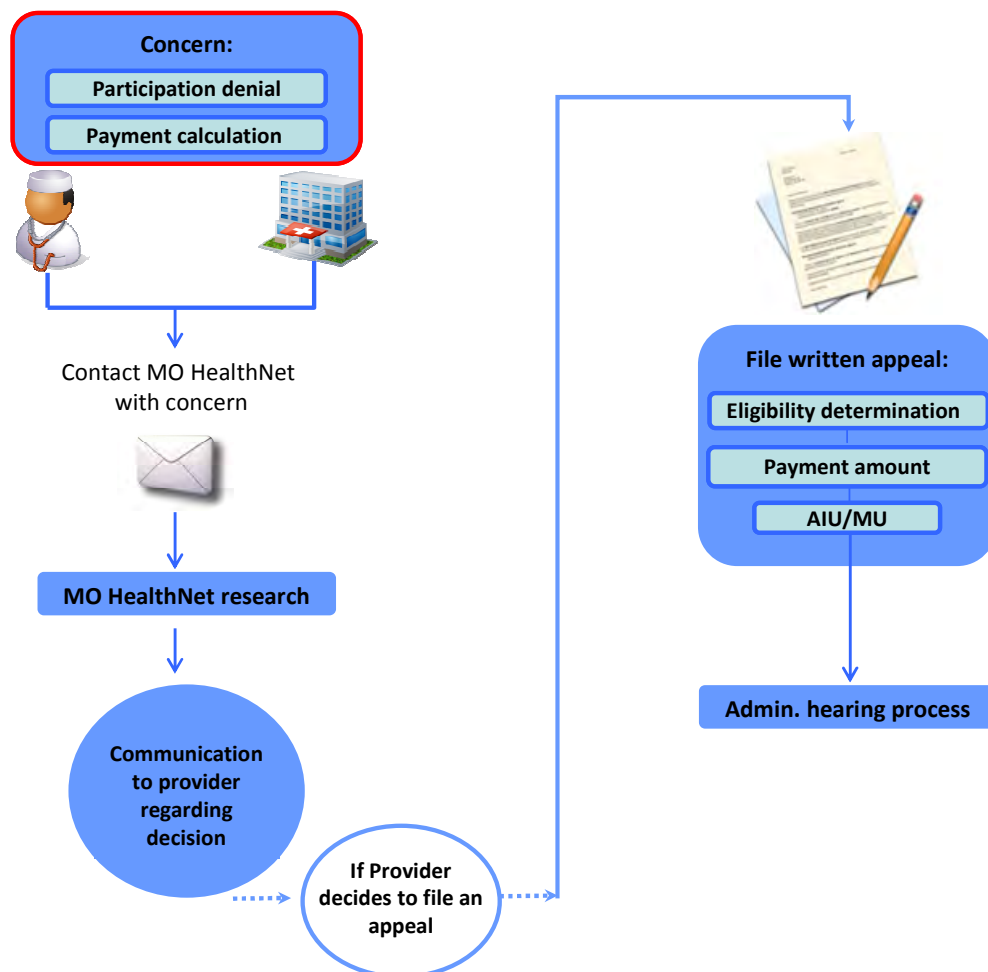
- Eligibility determination
- Patient volume threshold decisions
- Meaningful use demonstrations
- AIU attestations
- Provider location (e.g., hospital-based)
- Practicing predominantly in an FQHC or RHC
- Hospital qualification (e.g., acute care, children's hospital)

In order to most efficiently offer providers redress, MO HealthNet will take two approaches to the appeal process, as depicted in **Figure 27**. The first step serves as an opportunity for the provider to request additional information about the denial. Providers will send a certified letter outlining concerns related to eligibility determinations or payment amounts to MO HealthNet. The issue will be researched and MO HealthNet will contact the provider with the result.

The second step is the formal appeals process, currently used for Medicaid payment denials and governed by Missouri Statute (208.156). The statute indicates that any MO HealthNet service provider is entitled to a hearing before the Administrative Hearing Commission (AHC) on a final decision of the MO HealthNet Division. This step will be utilized if a provider either is not satisfied with the outcome from, or does not want to engage in, step one. If a provider is adversely affected by a denial decision, s/he can file an appeal through the AHC. The AHC has jurisdiction in statutorily specified matters including State tax, professional licensing, and Medicaid provider issues. All decisions are subject to judicial review.

The AHC also contracts with other Missouri agencies to assist in their decision-making processes. In such cases, the Commission conducts the proceedings but only makes a recommended decision to the agency. The agency makes the final decision. This process will be consistent with the requirements as outlined in §447.253(e).

**Figure 27. Appeals Process**



### **Appeals Process Steps**

- EP or EH receives a notification that they do not qualify for the Medicaid EHR Incentive Payment or there is the belief that the payment calculation is incorrect.
- The EP or EH sends a registered letter outlining concern to MO HealthNet.
- MO HealthNet researches the issue and contacts the provider with a determination.
- If EP or EH is not satisfied with the determination, they will file an appeal.
- The appeal will be processed via the Administrative Hearing Commission (AHC), as outlined above.
- The EP or EH will receive final notification via the AHC.



## **4. Section D: Missouri's Audit Strategy**

*CMS has indicated that discussion of the State's plans to reduce provider burden and maintain integrity and efficacy of the oversight process may be deferred. Although MO HealthNet preliminarily addresses this information below, the State anticipates more detail will be provided in future versions of the SMHP.*

### **4.1 Overview**

An effective audit strategy, employing appropriate controls and oversight mechanisms, will be critical to ensuring the integrity of MO HealthNet's Medicaid Electronic Health Record (EHR) Incentive Payment Program. This section outlines the methods MO HealthNet will utilize to avoid making improper payments, identify suspected fraud and abuse, and leverage existing data sources to verify meaningful use. MO HealthNet anticipates procuring contractor services to implement the audit program and services described below.

### **4.2 Program Integrity/Audit Process**

Current Medicaid program integrity activities are located within the Program Integrity Unit within the MO HealthNet Division of the Department of Social Services (DSS). Oversight for program integrity and audit functions related to the Medicaid EHR Incentive Program will rest within this unit. It is MO HealthNet's understanding that CMS is working to develop audit guidelines as part of the Medicare EHR Incentive Program; as these activities advance, MO HealthNet will work with CMS to incorporate appropriate elements into its audit strategy to reduce duplication and contribute to efficient audit operations. Future iterations of the SMHP will provide greater detail regarding MO HealthNet's audit strategy and plans.

#### **Pre-Payment Validation Activities Summary**

MO HealthNet will engage in a range of pre-payment validation activities including, but not limited to verification of licensure and specialty information using the Missouri Board of Healing Arts licensure database; verification that a provider is not an excluded provider using the federal Office of the Inspector General (OIG) database; verification that the eligible professional (EP) is not hospital-based through the use of Medicaid encounter data in the Medicaid Management Information System (MMIS); and verification of patient volume thresholds. MO HealthNet will also request that a provider submit an attestation relative to the Adopt, Implement and Upgrade (AIU) requirement.

#### **Post-Payment Audit Activities Summary**

MO HealthNet has the following goals for the audit process and program integrity operations:

- Reduction of provider burden by leveraging existing data sources where appropriate (e.g., MMIS data);
- Efficiency of program operations by focusing audit efforts on providers identified as "high-risk";
- Proper handling of public funds; and
- Internal processes for determining provider eligibility and calculating provider payments.

MO HealthNet will secure an experienced audit contractor to supplement the resources of current program integrity staff through the state procurement process. Section E provides additional detail about the planned use of contractors, and program management and oversight.

MO HealthNet has prioritized two main areas of focus within the audit activities as part of the procurement process: high-risk and random sample audits. The most significant area includes those professionals and hospitals that fall into the definition of high-risk. A high-risk professional or hospital meets one of the following criteria:

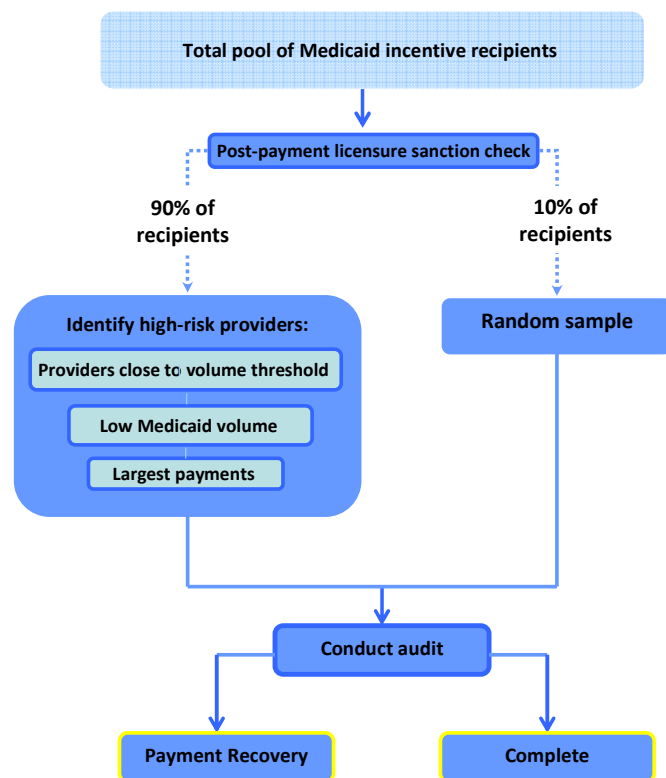
- Eligibility that is near the required volume thresholds for program eligibility;
- Low number of Medicaid encounters such that it is unlikely that required thresholds will be met; or
- Received a Medicaid incentive payment above a set financial threshold (EHs only).

Audits will address all data components of the provider's profile, including all attestations and payment calculations. For providers meeting the volume threshold via care provided in a neighboring state, the MO HealthNet auditing process will include a direct query to the neighboring state's Medicaid Agency.

In addition to audit activities for this population, MO HealthNet will also require a random sample of at least 10 percent of those receiving the Medicaid incentives.

**Figure 28** depicts the planned audit process.

**Figure 28. Audit Process**



### 4.3 Audit Benchmarks

MO HealthNet benchmarks for audit activities are based on the anticipated numbers of EPs and EHs participating in the Medicaid EHR Incentive Program. MO HealthNet has projected the numbers of professionals and hospitals that are likely eligible for the incentives based on their ability to meet required volume thresholds. (These projections are included in Figure X on page xx in Section C.) Of this pool of eligible providers, MO HealthNet anticipates that 60 percent of hospitals and 50 percent of providers will initially enroll in the program.

MO HealthNet will ensure a minimal auditable data set to ensure a statistically valid sample size. For planning purposes, MO HealthNet estimated a sample using a 95 percent confidence interval

and a standard deviation of 25. Based on these calculations, MO HealthNet anticipates conducting approximately 41 total audits in year one: 23 EP audits and 18 EH audits. Audit targets in subsequent years will be revised based on the enrollment experience in year one.

#### **4.4     *Payment***

##### **Payment**

To ensure proper payment procedures, MO HealthNet (and/or its contractor, as appropriate) will also periodically monitor grant payments to identify any duplicate payments; payments over or under the required payment amount; and payments that are inconsistent with funding schedules. As stated in Section C, payments will be processed through the MMIS. This affords MO HealthNet another place to track funds, as both the incentive funds and associated administrative costs will be assigned separate accounting codes. Incentive program payments will also be reported as part of the CMS-64 financial reporting process.

##### **Payment Recovery**

MO HealthNet payment recovery activities will model and leverage existing processes. MO HealthNet will utilize a database to track all audits conducted under the EHR incentive program including: status of all audits; findings; amount of identified overpayments; overpayment recovery status; status of funds returned to CMS; potential referral for audit of other aspects of the provider's Medicaid business, etc.

When overpayments are detected via the audit process, the contractor will contact MO HealthNet, and MO HealthNet will subsequently initiate the appropriate recovery action. Currently, the MO HealthNet payment recovery process begins with a registered letter sent to the provider requesting repayment. If funds are not repaid, the State augments future payments to account for the required payment amount. In absence of Federal guidelines to the contrary, MO HealthNet will follow general procedures for dealing with Medicaid fraud and abuse.

#### **4.5     *Data Sources***

When an EP or EH is selected for audit, all elements included in the provider profile may be audited. MO HealthNet anticipates that these activities will include, but will not be limited to:

- Verifying licensure and specialty information using data from the Missouri Department of Healing Arts, Division of Professional Registration, and MMIS Master File;
- Verifying that the provider is not an excluded provider using the federal OIG database;
- Use of Medicaid encounter data as a proxy to verify that the EP is not hospital-based; and
- Review of attestations and documentation for Adopt, Implement and Upgrade (AIU) of certified EHR technology.

MO HealthNet will leverage a number of internal and external resources to support audit and program integrity operations. Examples of these resources will include:

- The level of claims submitted to the primary pharmacy hub, SureScripts;

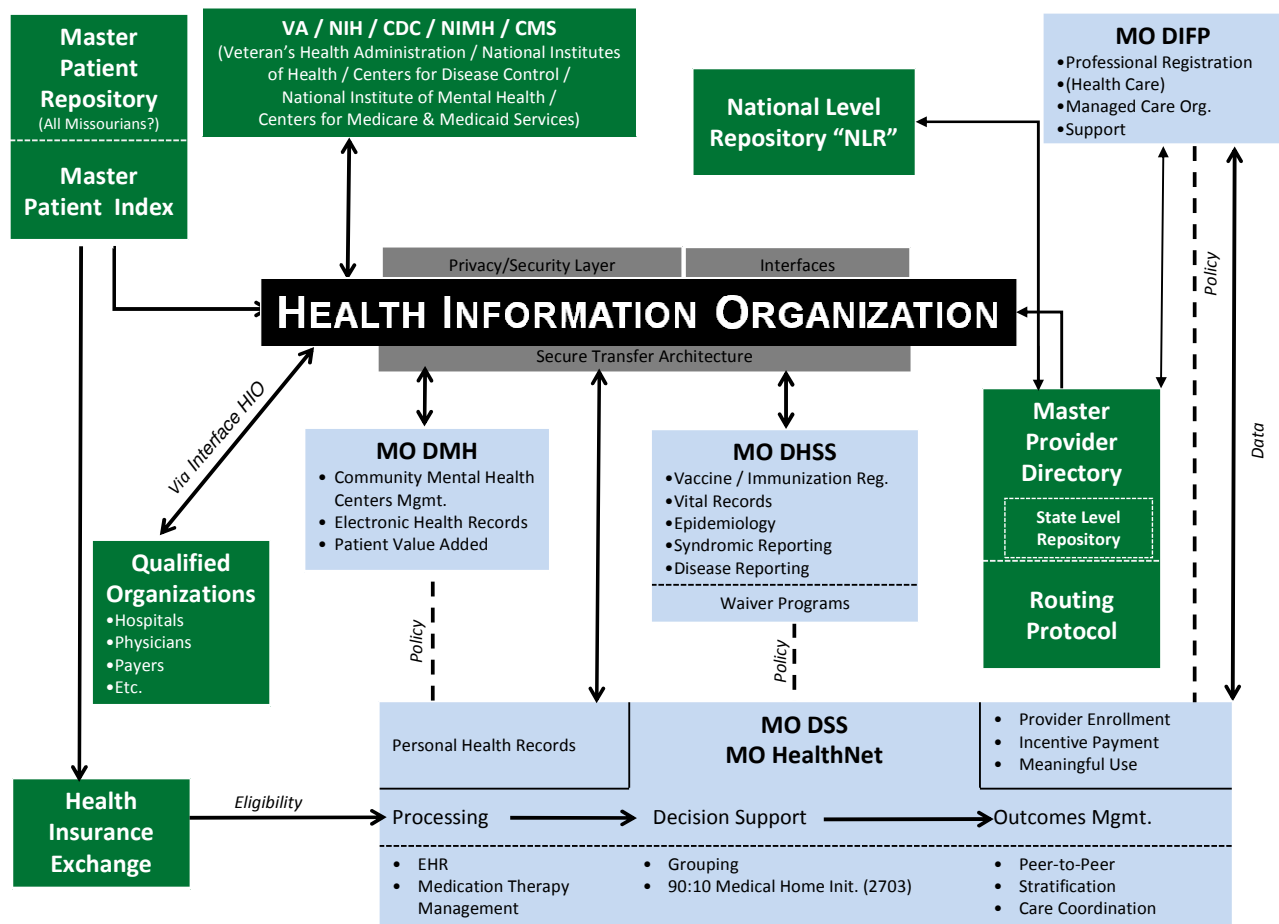
- Encounter data provided by the state's managed care organizations;
- MMIS encounter data; and
- Hospital cost report submissions contained in the MMIS.

## 5. Section E: Missouri's HIT Roadmap

### 5.1 Overview

MO HealthNet leadership believes that health IT is crucial to transforming Missouri's health care system. Key components of this transformation include supporting adoption of electronic health records (EHRs), a reengineered Medicaid Management Information System (MMIS); and health information exchange (HIE). Following Medicaid Information Technology Architecture (MITA) guidelines, Missouri has been working toward full clinical data exchange with its HIE partners, including narratives, laboratory results, radiology reports with associated clinical images, immunization data and other image documents. At the provider level, CyberAccess offers patient-specific histories, risks, gaps-in-care, reporting, and treatment alerts at the point of care. The goal is to provide a clear understanding of the patient's previous care and indicators to encourage potential quality of care improvements among all connected partners. Combined, these activities will dramatically increase the amount of data available in electronic format among and across settings. This section outlines how MO HealthNet will progress from its current state to the proposed *goal state* over the next five years. **Figure 29** reflects the activities and exchange that the state is seeking to accomplish.

**Figure 29. MO HealthNet Approach to Health Information Exchange**



October 14, 2010

## **5.2 Support EHR Adoption**

Adoption of EHRs by Missouri's providers is a cornerstone of an efficient health care delivery system that is able to leverage health information to improve the quality of medical decision-making and care coordination. MO HealthNet is taking an active role in supporting this adoption in a number of ways. For example, MO HealthNet is collaborating with the Missouri Primary Care Association to make the best use of its Health Resources and Services Administration grants and facilitate full participation by FQHC-employed physicians in the incentive program. MO HealthNet is also committed to making a low-cost EHR technology available to providers; as a partner in statewide HIE planning efforts, MO HealthNet will ensure that all of its providers have access to CyberAccess or another certified EHR. Combined with promotion of the Medicaid EHR Incentive Program, MO HealthNet believes these activities will facilitate adoption and ultimately improve the landscape for both providers and patients.

### **Administer Medicaid EHR Incentive Program**

MO HealthNet recognizes the effort and resources required to implement and administer the Medicaid Electronic EHR Incentive Program as described in the previous sections, and is currently undergoing planning efforts to procure a provider registry and upgrade the current provider enrollment tool to support program administration. In an effort to monitor, track, and adjust MO HealthNet's strategy, MO HealthNet has set goals and benchmarks for provider enrollment and participation, and will monitor progress toward these goals. These benchmarks, reflected in **Figure 30**, include estimates of the providers and hospitals that will enroll in the Medicaid EHR Incentive Program over the next five years. MO HealthNet anticipates that in the second year of the program, when meaningful use must be demonstrated, enrollment and eligibility for incentives will not increase significantly from enrollment under Adopt, Implement and Upgrade requirements. In addition, because hospital incentives are significantly larger than those for physicians, MO HealthNet estimates higher enrollment for eligible hospitals.

The methodology used in developing these projections was based on a number of factors, including information gleaned from the provider survey indicating interest in the incentives and current levels of EHR adoption. The projections assume significant participation in year one, a small increase in year two when demonstrating meaningful use is required, and then incremental expansion.

**Figure 30. Medicaid EHR Incentive Program Enrollment Over 5 Years**

| Provider Type                 | Eligible Providers & Hospitals (Estimated) | Medicaid EHR Incentive Program Enrollment (Projected) |        |        |        |        |
|-------------------------------|--|---|--------|--------|--------|--------|
|                               |  | Year 1  | Year 2 | Year 3 | Year 4 | Year 5 |
| <i>Eligible Professionals</i> |  |   |        |        |        |        |
| Physician (MD)                | 598  | 299   | 310    | 400    | 450    | 500    |
| Physician (DO)                | 125  | 65  | 70     | 85     | 95     | 105    |
| Physicians in MCOs            | 298  | 150   | 165    | 210    | 240    | 270    |
| Nurse Practitioner            | 73   | 37  | 40     | 48     | 55     | 65     |
| Certified Nurse Midwife       | 5  | 3   | 4      | 4      | 4      | 5      |
| Dentists                      | *  | *   | *      | *      | *      | *      |
| <b>Total</b>                  | <b>1099</b>                                |   |        |        |        |        |
| <i>Eligible Hospitals</i>     |  |   |        |        |        |        |
| Acute Care Hospitals          | 71   | 48  | 56     | 63     | 65     | 70     |
| Children's Hospitals          | 4  | 3   | 3      | 4      | 4      | 4      |
| Critical Access Hospitals     | 15   | 9   | 10     | 13     | 14     | 15     |
| <b>Total</b>                  | <b>90</b>                                  |   |        |        |        |        |

\* Projected enrollment for dentists is not available at this time.

MO HealthNet will create and implement the appropriate EHR incentive payment systems that are described in Section B, and processes outlined in Sections C and D. As part of this implementation plan, a number of dependencies have been identified, including: the requirement that states must have approved State Medicaid Health IT Plan (SMHP) and Implementation Advanced Planning Document (I-APD) documents; end-to-end National Level Repository (NLR) testing; attestations that must be accepted within 90 days of program launch; and the requirement that payments be made within 45 days of successful attestation. MO HealthNet is incorporating these dependencies into planning activities to ensure program launch by February 2011. **Figure 31** outlines the project schedule.

**Figure 31: Medicaid EHR Incentive Program Timeline**

| Deliverable  | Start Date | End Date   |
|--|------------|------------|
| Launch MO HealthNet EHR Incentive Program website ( <i>completed</i> ) | 07/1/2010  | 07/31/2010 |
| Conduct EHR Incentive Payment Outreach                                 | 08/01/2010 | 12/31/2010 |
| Submit Draft SMHP for CMS Review                                       | 09/01/2010 | 09/30/2010 |
| Implement System Updates   | 10/01/2010 | 3/31/2011  |
| Test State-Federal NLR interfaces ( <i>completed</i> )                 | 10/21/2010 | 11/30/2010 |
| Receive Initial Provider Survey Results                                | 11/1/2010  | 11/30/2010 |
| Email Blast/Presentation: Provider Survey Results                      | 11/1/2010  | 11/30/2010 |
| Submit Final SMHP for CMS Approval                                     | 11/31/2010 | 11/31/2010 |
| Submit I-APD for CMS Approval  | 12/01/2010 | 12/31/2010 |
| Email blast: program launch  | 01/01/2011 | 01/15/2011 |
| Begin Accepting Attestations via Web Portal                            | 03/31/2011 | 12/31/2011 |
| Begin Issuing Provider & Hospital EHR Incentive Payments               | 04/30/2011 | 12/31/2011 |
| Audit Process Begins (first audits conducted)                          | 10/01/2011 | 10/31/2011 |

### **5.3 MMIS Reengineering**

The reengineering plan is scheduled for alpha testing to occur throughout the remainder of 2010 and beta testing to commence in early 2011. In addition to these modules, a range of system enhancements are planned for implementation within the next three years. These deliverables, with associated implementation dates, are outlined in **Figure 32**. The State is also exploring how MMIS architecture and other health IT assets can support health care reform efforts within the state. For example, as part of the state efforts to explore health insurance exchange capabilities, MMIS financial processes may be leveraged.



**Figure 32. MMIS Schedule of Deliverables**

| MMIS Component<br>(selected)                  | Purpose/Benefit  | Implementation Date                             |
|---|--|---|
| Centralized Prior Authorization               | Automated a manual process to improve care reduce duplicate services       | Implemented in 2009                             |
| Correspondence Imaging and Automated Workflow | Automation of workflow/document handling for efficiency and accountability | Implemented in 2009                             |
| Browser-Based End User Screens                | Graphical user interfaces to improve user productivity                     | Implemented in 2010                             |
| Audit Trails                                  | Records online and batch transaction processing activity                   | Implemented in 2010                             |
| Enterprise Service Bus Interface              | Provides a means to capture, interpret, transport and exchange data        | September 2010                                  |
| Online Real-Time Transactions Processing      | Eliminates nightly batch processing and improves MMIS responsiveness       | September 2010                                  |
| Web Services Technologies                     | Allows for migration toward advanced generations of application software   | September 2010                                  |
| Meta-Data Management                          | Centralized repository for MMIS transaction data                           | Ad Hoc: December 2010<br>MAR/SUR: February 2011 |
| Relational database management                | MMIS to industry standard for data storage and retrieval                   | Phase 1: March 2011<br>Phase 2: December 2011   |
| Rules Engine                                  | MMIS operational efficiency  | Phase 1: March 2011<br>Phase 2: July 2011       |
| HIPAA II Data Exchange and Code Sets          | Nationally mandated data exchange standards compliance                     | January 2012<br>(ICD-10: October 2013)          |

## CyberAccess Rollout

MO HealthNet is currently upgrading CyberAccess to be compliant with standards and certification criteria issued by the U.S. Department of Health and Human Services. Once certified, MO HealthNet plans to offer the CyberAccess solution to all of its providers and potentially other providers who currently lack access to an EHR. Pricing for the solution—when and if it is offered to non-MO HealthNet providers—has not yet been determined, though it is expected to be nominal.

CyberAccess will enable access to a web-based low-cost certified EHR solution, requiring minimal upgrades or purchases. In addition, it will enhance provider's ability to automate many areas of their practices to achieve meaningful use, including, but not limited to:

- Accessing MO HealthNet information and data;
- Transmitting prescriptions and approving refill requests electronically;
- Receiving and viewing structured lab results electronically;
- Submitting claims;
- Obtaining real-time member eligibility information;

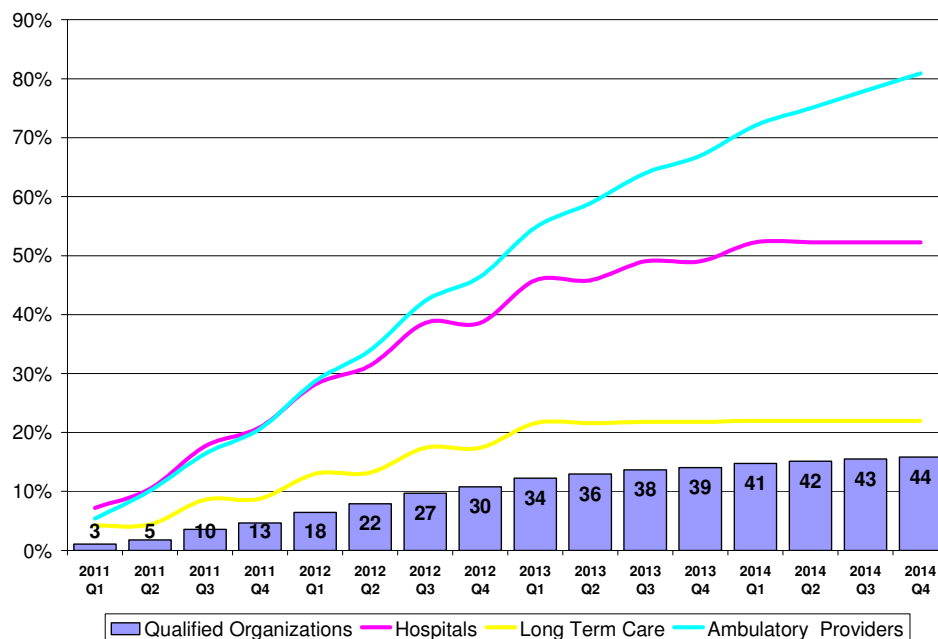
- Conducting quality and public health reporting; and
- Accessing patient immunization history information.

MO HealthNet is committed to ensuring that CyberAccess will protect the integrity and security of all personal health information. As an active partner in the development of statewide privacy and security guidance, MO HealthNet will ensure that proper policies and procedures are in place to safeguard both provider and patient privacy.

CyberAccess improvements, including certified EHR technology, are expected to be ready for rollout by the end of December 2010; MO HealthNet will support the rollout on an ongoing basis.

In conjunction with the Missouri Office of Health Information Technology (MO-HITECH) statewide health information exchange (HIE) planning initiative, MO HealthNet participated in a financial modeling and planning exercise to estimate provider organizations' abilities to connect to a statewide HIE network *using a certified EHR*. **Figure 33** displays connectivity to a statewide HIE network among hospitals, long-term care, and ambulatory providers through a *Qualified Organization*. A Qualified Organization is defined as an organization that aggregates health care providers, regardless of type, for purposes of connectivity to the statewide HIE network. Estimates indicate that by the end of 2014, approximately 80 percent of ambulatory care providers, 50 percent of hospitals, and 20 percent of long-term care providers will be connected using a certified EHR. These estimates will be refined by the Missouri Health Information Organization (Missouri HIO), in collaboration with MO HealthNet and stakeholders.

**Figure 33. Provider Connectivity to a Statewide HIE Network Using Certified EHRs**



### **5.3     *Support Health Information Exchange***

MO HealthNet is committed to supporting the development of statewide HIE. As described in the “To-Be Landscape” (Section B), the Missouri HIO was recently incorporated and is actively working to lay the groundwork and establish a technical infrastructure for a statewide HIE network in Missouri. The Department of Social Services (DSS) will execute a contract with the Missouri HIO to transfer the state’s planning and implementation funds under the Statewide HIE Cooperative Agreement Program; this contract assures MO HealthNet’s participation in and protection of its interests, as well as the public good in the Missouri HIO.

MO HealthNet is a participant in the Missouri HIO at all levels—stakeholder, workgroup member, and Board Director—and is continuously helping to shape the vision and roadmap for statewide HIE. The various workgroups and Board of Directors meet monthly and MO HealthNet has dedicated staff resources to participate. MO HealthNet and the Missouri HIO are currently exploring how the MO HealthNet provider enrollment tool may be scaled to create a provider registry which may also support statewide HIE goals and services. MO HealthNet and the Missouri HIO will continue to work together to design and implement a registry that will be interoperable statewide among the two organizations as well as other state agencies. (See earlier references starting at Section 2.2.)

The Missouri HIO will ultimately develop requirements for full participation in statewide HIE with respect to governance, technology, and privacy and security. As a member of the Missouri HIO, MO HealthNet will sign a participation agreement outlining these requirements and oversight policies.

The Missouri HIO must also develop a business model and plan for financial sustainability. MO HealthNet staff have been active participants in the creation of a preliminary financial model and will continue to work with the Missouri HIO staff to support a model that MO HealthNet is confident in and in which it will participate. It is currently anticipated that the Missouri HIO will implement a membership/subscription fee model, consisting of a bundled up-front connectivity cost and ongoing membership/subscription fees charged on a regular (e.g., monthly, annual) basis.

### **5.4     *Support Medical Homes***

As part of its work on health care reform, Missouri has begun to explore ways in which care coordination and chronic disease management efforts can be integrated into existing activities. As a result of these discussions, the State is in the planning stages of a project to coordinate care via the creation of health homes. The project’s goal is to coordinate care for high-risk MO HealthNet enrollees in order to improve outcomes. High-risk enrollees are defined as those with at least two chronic conditions, one chronic condition with a risk of another, or one serious and persistent chronic condition (e.g., mental health, asthma, obesity, diabetes, heart disease, etc.). Outcome measures will be based on administrative data and could include HEDIS or HEDIS-like measures. It is planned for the initiative to begin in July 2011.

### **5.5     *Capture Quality Measures Data***

MO HealthNet will have an increasingly expanded quality data set as planned quality assurance activities progress over the next 12 months. Specifically, staff are being hired to conduct more robust comparative analyses of data sets, such as those related to Children’s Health Insurance Program Reauthorization Act (CHIPRA), HEDIS and HEDIS-like measures for the fee-for-service

population. It is anticipated that clinical data associated with the Medicaid EHR Incentive Program will be incorporated into this strategy.

In addition, MO HealthNet is working with the Department of Mental Health to use clinical quality measures in the management of those with high-risk mental health disorders. The goal is to eventually automate this process.

## **5.6     *Program Management and Oversight***

The Medicaid EHR Incentive Program is a central component of DSS and MO HealthNet efforts to advance health IT within Missouri. As with other programs and initiatives, MO HealthNet has identified a leadership and governance structure that will facilitate program administration while ensuring oversight, accountability and transparency. The approach reflects MO HealthNet's efforts to:

- Remove barriers and create enablers for health IT adoption and widespread achievement of meaningful use;
- Collaborate with stakeholders and other partners to contribute to the development and promotion of the Medicaid EHR Incentive Program in Missouri;
- Leverage existing infrastructure and processes to enable efficient program operations; and
- Coordinate, as appropriate, with other Missouri departments and divisions.

As part of the accountability and leadership structure, MO HealthNet has identified Deputy Division Director-Clinical Services, George Oestreich, as the primary lead for this initiative. Dr. Oestreich will serve as the Director of the Medicaid EHR Incentive Program. Diana Jones, MO HealthNet's Director of Clinical Services, will take responsibility for day-to-day program management activities.

## **6. Appendices**

### **6.1 *Missouri HIO Board of Directors***

John Bluford, President and CEO, Truman Medical Center

Kim Day, Senior Vice President, Regional Markets, Sisters of Mercy Health System

Margaret Donnelly, Director, Missouri Department of Health and Senior Services (ex-officio, voting)

Karen Edison, M.D., Co-Principal Investigator, Missouri HIT Assistance Center (ex-officio, non-voting)

Laura Fitzmaurice, MD, Chief Medical Information Office, Children's Mercy Hospital

Craig Glover, Chief Information Officer, Grace Hill Health Centers

Tracy Godfrey, MD, Family Physician, Family Health Center of Joplin

Melissa Johnsen, Private Citizen and Former Business Executive

Sandra H. Johnson, JD, Interim Dean and Professor Emerita of Law and Health Care Ethics, Saint Louis University School of Law

Herb Kuhn, President and CEO, Missouri Hospital Association

Ronald Levy, Director, Missouri Department of Social Services (ex-officio, voting)

Ian McCaslin, MD, Director, MO HealthNet Division (ex-officio, non-voting)

Steve Roling, President and CEO, Healthcare Foundation of Greater Kansas City

Andrea Routh, Executive Director, Missouri Health Advocacy Alliance

Steve Walli, President and CEO, United HealthCare

David Weiss, Senior Vice President and CIO, BJC Healthcare

Karl Wilson, President and CEO, Crider Health Center

## 6.2 *Missouri HIT Provider Survey*

1. What best describes your organization or practice type?\* (Select one option)

- ☐ Hospital
- ☐ Physician or Dental Practice
- ☐ Nursing Home
- ☐ Other
- ☐ Retired (**Note: not required to complete survey**)

2. What best describes your organization or practice?\* (Select one option)

- Hospital
  - ☐ General Acute Care Hospital - Non Critical Access Hospital
  - ☐ General Acute Care Hospital - Critical Access Hospital
  - ☐ Specialty Acute Care Hospital
  - ☐ Children's Hospital
  - ☐ Academic Medical Center
  - ☐ Hospital-based physician (**note: not required to complete survey**)
  - ☐ Other (please specify)
- Physician or Dental Practice
  - ☐ Solo primary care practice
  - ☐ Solo specialty care practice
  - ☐ Primary care group or partnership
  - ☐ Single specialty group or partnership
  - ☐ Multi-specialty group or partnership
  - ☐ Dental practice
  - ☐ Hospital-based physician (**note: not required to complete survey**)
- Other Organization
  - ☐ Federally Qualified Health Center or Community Health Center
  - ☐ FQHC Look-A-Like
  - ☐ Rural Health Clinic
  - ☐ Community Mental Health Center
  - ☐ Mental Health Center
  - ☐ Public Health Department

3a. Demographics\*

- First Name\*:
- Last Name\*:
- Organization:
- Mailing Address\*:
- City\*:

- State\*:
- Zip Code\*:
- NPI # for Primary Location:
- E-mail Address\*:
- Phone\*: xxx-xxx-xxxx

### 3b. Demographics

- Respondent First Name:
- Respondent Last Name:
- Respondents Title:
- Respondent Email Address:
- Respondent Phone: xxx-xxx-xxxx

### 3c. Demographics

- Technology Contact First Name:
- Technology Contact Last Name:
- Technology Contact Email:
- Technology Contact Phone: xxx-xxx-xxxx

### 4. Do you plan to apply for provider incentives for implementing Electronic Health Record (EHR) technology?\*

- ☐ Yes
- ☐ No (Go to 6)
- ☐ Unsure (Go to 6)

### 5. Will you seek incentives for EHR implementation from Medicare or Medicaid? Please check all that apply.\*

- ☐ Yes – Medicare (Go to 7)
- ☐ Yes – Medicaid (Go to 7)
- ☐ No (Go to 7)
- ☐ Unsure (Go to 7)

### 6. What are the reasons for not seeking stimulus funding or incentives through Medicare or Medicaid?

- ☐ Need further information about these opportunities
- ☐ Stimulus funding available is less than the cost of a new system
- ☐ Unsure of what EHR system to purchase
- ☐ Connectivity (slow or no internet connection)
- ☐ Security and Privacy Requirements
- ☐ Inadequate training/lack of preparedness to implement
- ☐ Workflow Management
- ☐ Implementation Guidelines/Requirements
- ☐ Clinical Relevance
- ☐ Limited access to capital funding

- ☐ Do not serve Medicare or Medicaid patients
- ☐ Plan to retire in next few years

10. Please provide the following information about your organization or practice.\*

|  | None                             | < 1                   | 1-5                   | 6-10                  | 11-25                 | 26-50                 | 51-100                | 100+                  |
|--|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| How many physicians are there in your organization or practice?  | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| How many midlevel practitioners such as ARNP's, PA's and nurse midwives are there in your organization or practice?                              | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| How many physicians or midlevel practitioners in your organization or practice will access clinical information at the individual patient level? | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| How many midlevel practitioners in your organization or practice have prescriptive privileges?   | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

12. Does your organization currently use an EHR system?\*

- ☐ Yes (go to 13 and skip 27, 28, 30)
- ☐ No (go to 27)

13. What is the name of your current EHR vendor company?

- ☐ Allscripts
- ☐ Aprima
- ☐ Athena
- ☐ Cerner
- ☐ CPSI
- ☐ eClinicalWorks
- ☐ Eclipsys
- ☐ EHSMed
- ☐ eMDs
- ☐ EPIC Systems
- ☐ GE Healthcare
- ☐ Greenway Medical Technologies
- ☐ Healthland
- ☐ HealthMEDX
- ☐ Ingenix
- ☐ McKesson Provider Technologies
- ☐ MedAppz
- ☐ MedNotes
- ☐ MediSoft
- ☐ Meditech
- ☐ NextGen Healthcare Information Systems
- ☐ PDS
- ☐ Pulse System
- ☐ Sage Software
- ☐ Siemens
- ☐ Other (please specify)



14. Do you receive regular updates from your vendor?

- ☐ Yes
- ☐ No
- ☐ Unsure

15. What year did you implement your EHR system?

Enter 4 digit year (YYYY):

16. Describe how your organization's EHR system is hosted:\*

- ☐ Onsite (in-house)
- ☐ At an affiliate hospital or other practice (remote server)
- ☐ At a third party reseller vendor site (remote server)
- ☐ Over the internet with an EHR vendor (remote server)
- ☐ Other (please specify)
- ☐ Unknown

17. The following question focuses on your organization's use of EHR functionality. Indicate if your organization has a computerized system for each of the following features.\*

|  | Yes                   | No                    | Unsure                |
|--|-----------------------|-----------------------|-----------------------|
| ePrescribing   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Patient Allergy Lists  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Patient Medication Lists   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Clinical Decision Support  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Clinical Documentation/Notes                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Medical History  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Follow up notes  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Patient Problem Lists  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Patient-Specific Care Plans  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Patient registry for grouping by chronic disease (e.g. diabetes)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Reminders for guideline-based interventions and/or screening tests | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Computerized Provider Order Entry                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Discharge Planning   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Electronically sending orders for laboratory tests                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Electronic receipt of lab tests                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Out-of-range lab results levels highlighted                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Electronically sending orders for radiology/imaging tests          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Electronically receiving radiology/imaging results                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Viewing electronic images of radiology tests                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Public Health Reporting  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Electronically sending notifiable disease notifications            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Reporting quality measures   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Exchange with other system   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Provider-to-provider secure messaging                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Provider-to-patient secure messaging                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

18. The following question focuses on your organization's use of electronic prescribing functionality. Indicate if your organization has a computerized system for each of the following features. \*

|   | Yes                   | No                    | Unsure                |
|---|-----------------------|-----------------------|-----------------------|
| Medication history for scripts prescribed by your practice's prescribers.                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Medication history for scripts prescribed by prescribers outside your practice            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Drug to drug interactions or contraindication   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Drug to allergy check   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Drug to formulary check   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Electronic (not fax) transmission of permissible prescriptions to pharmacy                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Electronic (not fax) refill requests from pharmacy  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Prescriptions faxed to Pharmacy via system (i.e. Fax Server)                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Medication reconciliation during transitions of care to avoid potential medication errors | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

19. Does your organization currently provide a means for patients to electronically access their personal health information?\* (Please check all that apply)

- ☐ Do not currently provide patient access
- ☐ Provide secure electronic communications
- ☐ Provide access for scheduling and payments only
- ☐ Provide secure access to clinical records
- ☐ Other (please specify)
- ☐ Unknown

20. Is your EHR connected to any of the following? (Please check all that apply)

- ☐ None
- ☐ Another physical location owned by this organization
- ☐ A hospital that owns this organization
- ☐ Pharmacy
- ☐ Other clinics
- ☐ Other hospitals
- ☐ Health system
- ☐ Laboratory(s)
- ☐ Other (please specify)

21. Is your EHR hardware provided by your EHR software vendor?

- ☐ Yes
- ☐ No
- ☐ Unsure

22. How satisfied are you with your current EHR system?

- ☐ Very Satisfied
- ☐ Somewhat Satisfied
- ☐ Somewhat Dissatisfied
- ☐ Very Dissatisfied

Reason for Dissatisfaction:

27. How seriously have you considered an EHR for your organization?\*

- ☐ Seriously
- ☐ Casually
- ☐ Not at all
- ☐ Considered but rejected

28. What is the degree of Electronic Health Record implementation readiness in your organization?\*

- ☐ Implementation is not planned within the next 2 years
- ☐ Implementation is planned in the next 3 months
- ☐ Implementation is planned in the next 3 - 6 months
- ☐ Implementation is planned in the next 6 - 9 months
- ☐ Implementation is planned in the next 9 - 12 months
- ☐ Implementation is planned in the next 1 - 2 years
- ☐ Other (please specify)

**Worksheet Note:**

- *If the response to Question 28 is "Implementation is not planned within the next 2 years" then answer question 30 otherwise go to 31.*

30. Please check the main reasons your organization does not expect to invest in electronic health records (EHR) in the foreseeable future.\* (Check all that apply)

- ☐ Too expensive
- ☐ Confusing number of EHR choices
- ☐ No currently available EHR product satisfies our needs
- ☐ Staff does not have the expertise or technical capacity to use an EHR
- ☐ EHRs lack interoperability with other information systems resulting in high interface costs
- ☐ Decreased productivity during implementation resulting in decreased revenue
- ☐ Concern that EHR choice will quickly become obsolete
- ☐ Staff is satisfied with paper-based records system
- ☐ Privacy and security concerns, including HIPAA
- ☐ Limited resources
- ☐ Limited broadband access
- ☐ Fear of Transition
- ☐ Other (please specify)

31. Does your organization participate in a Health Information Exchange (HIE)?\*

- ☐ Yes (go to 32)
- ☐ No (go to 33)

32. Please provide the name of the HIE: \_\_\_\_\_ (go to 34)

33. What barriers do you face in participating in a Health Information Exchange (HIE)?\* (Check all that apply) (go to 36)

- ☐ Limited funds
- ☐ Limited resources
- ☐ Product does not support HIE
- ☐ Vendor does not support HIE
- ☐ Limited broadband access
- ☐ No barriers
- ☐ Legal, privacy and security concerns, including HIPAA
- ☐ Other (please specify)

34. Of the following external health organizations, please indicate the ones where you have experienced problems sending or receiving clinical information.\* (Please check all that apply)

- ☐ Do not have problems sending or receiving data
- ☐ Immunization registries
- ☐ Other state-operated registries (e.g., cancer, organ donation, etc.)
- ☐ Laboratories
- ☐ Public health agencies (for required reporting)
- ☐ Pharmacies
- ☐ Other (please describe)

36. Does your organization utilize Electronic Data Interface (EDI) capabilities?

- ☐ Yes (go to 36a)
- ☐ No (go to 37)

36a. Please identify all Electronic Data Interface (EDI) capabilities your organization currently uses.\*

| Do you currently:                | Submit primary insurance claims electronically through either a practice management system vendor or a clearinghouse application? | Submit secondary insurance claims electronically through either a practice management system vendor or a clearinghouse application? | Submit claims through website provided by the payer? | Verify insurance eligibility electronically through either a practice management system vendor or a clearinghouse application? | Verify insurance eligibility through a website provided by the payer? |
|----------------------------------|---|---|--|--|---|
| None                             | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Medicare                         | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Medicaid (MO HealthNet)          | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Kansas Medicaid (HMO or PPO)     | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Aetna Health                     | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Anthem Blue Cross & Blue Shield  | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Arcadian Health Plan             | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Blue-Advantage Plus              | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Blue-Care                        | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Children's Mercy's Family Health | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| CIGNA Kansas/Missouri            | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| CIGNA St. Louis                  | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Community Health Plan            | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Coventry Health Care Kansas      | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Cox Health Systems HMO           | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Essence Healthcare               | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Group Health Plan                | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Harmony Health Plan Missouri     | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Healthcare USA Missouri          | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Healthlink HMO                   | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Humana Health Plan               | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Mercy Health Plans Missouri      | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Missouri Care                    | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| Molina Healthcare Missouri       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |
| UnitedHealthcare Midwest         | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                             | <input type="checkbox"/>   | <input type="checkbox"/>  |

37. Please identify all transactions you process electronically:

| Do you currently:  | Remittance Advice        | Claims Status Request    | Claims Attachments       | Electronic Funds Transfer (EFT) |
|--|--------------------------|--------------------------|--------------------------|---------------------------------|
| Conduct the following types of transactions electronically through either a practice management system vendor or a clearinghouse application | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>        |
| Conduct the following transactions through a website provided by the payer   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>        |

38. Does your organization have an onsite lab?\*

- ☐ Yes (go to 39)  
☐ No (go to 41)

39. Does your onsite lab provide results to external entities?\*

- ☐ Yes (go to 40)  
☐ No (go to 41)

40. Does your lab have the capability to\*:

Receive orders electronically

- ☐ Yes
- ☐ No

Send results electronically

- ☐ Yes
- ☐ No

41. What type of internet access do you have at the point of care, in your location or locations (check more than one if multiple locations and differences apply)?

- ☐ Do not have internet access (Go to 43)
- ☐ Dial Up
- ☐ Cable
- ☐ Satellite
- ☐ T-1
- ☐ Fiber Optic Cable/FiOS
- ☐ Wireless (WiMax/WiFi/3G/4G/Microwave)
- ☐ DSL
- ☐ Other (please specify)

42. What is the name of your internet provider?

43. Are you interested in receiving information or assistance in any of the following areas?\* (Please check all that apply)

- ☐ Do not want to receive information or assistance (Go to 44)
- ☐ Federal Medicare EHR incentives
- ☐ Federal Medicaid EHR incentives
- ☐ Missouri HIE development
- ☐ Interfacing with the Missouri HIE
- ☐ Quality indicator reporting
- ☐ Lab reporting
- ☐ Electronic prescribing
- ☐ Clinical Data
- ☐ Assessment of your current organization readiness
- ☐ Assistance with vendor selection and contracting
- ☐ Workflow redesign
- ☐ Project management during EHR implementation
- ☐ Software configuration and data pre-load
- ☐ Optimization of your EHR utilization after go-live
- ☐ IT Services
- ☐ Data Center Hosting
- ☐ Security and Privacy Compliance (HIPAA)

45. What is your preferred method of contact?

- ☐ Phone
- ☐ Email \_\_\_\_\_
- ☐ US Mail

44. Does your organization have more than one location?

- ☐ Yes (Go to 47b)
- ☐ No (Survey Complete)

47b. Please list each location for your organization or practice and for each location, please indicate whether EHR is available at the location.

If the response has been pre-populated, please verify the data and update or delete locations as necessary.

|     | Address              | City                 | State                  | Zip                  | EHR Available?        |                       |
|-----|----------------------|----------------------|------------------------|----------------------|-----------------------|-----------------------|
|     |                      |                      |                        |                      | Yes                   | No                    |
| 1.  | <input type="text"/> | <input type="text"/> | <input type="text"/> ▼ | <input type="text"/> | <input type="radio"/> | <input type="radio"/> |
| 2.  | <input type="text"/> | <input type="text"/> | <input type="text"/> ▼ | <input type="text"/> | <input type="radio"/> | <input type="radio"/> |
| 3.  | <input type="text"/> | <input type="text"/> | <input type="text"/> ▼ | <input type="text"/> | <input type="radio"/> | <input type="radio"/> |
| 4.  | <input type="text"/> | <input type="text"/> | <input type="text"/> ▼ | <input type="text"/> | <input type="radio"/> | <input type="radio"/> |
| 5.  | <input type="text"/> | <input type="text"/> | <input type="text"/> ▼ | <input type="text"/> | <input type="radio"/> | <input type="radio"/> |
| 6.  | <input type="text"/> | <input type="text"/> | <input type="text"/> ▼ | <input type="text"/> | <input type="radio"/> | <input type="radio"/> |
| 7.  | <input type="text"/> | <input type="text"/> | <input type="text"/> ▼ | <input type="text"/> | <input type="radio"/> | <input type="radio"/> |
| 8.  | <input type="text"/> | <input type="text"/> | <input type="text"/> ▼ | <input type="text"/> | <input type="radio"/> | <input type="radio"/> |
| 9.  | <input type="text"/> | <input type="text"/> | <input type="text"/> ▼ | <input type="text"/> | <input type="radio"/> | <input type="radio"/> |
| 10. | <input type="text"/> | <input type="text"/> | <input type="text"/> ▼ | <input type="text"/> | <input type="radio"/> | <input type="radio"/> |